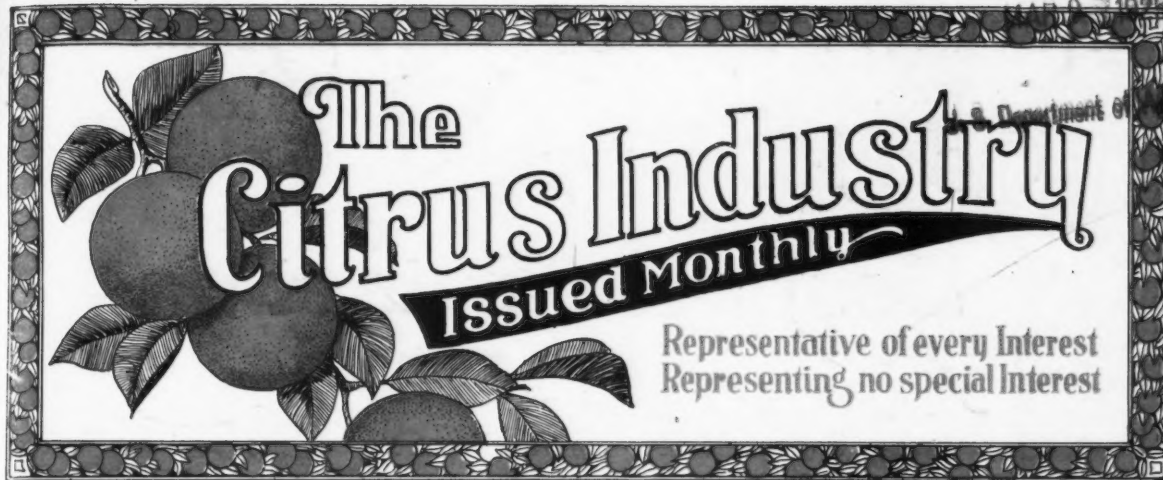


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VOL. 6, NO. 2

TAMPA, FLA., FEBRUARY, 1925

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Superior Selling Service For Growers' Organizations As Well As For Individual Growers

The American Fruit Growers Inc., handles sales for numerous growers' organizations throughout the country.

We offer to growers, and also to groups of growers in Florida who have their own packing facilities, a nation-wide selling service, the use of our nationally known BLUE GOOSE trade mark, and our electric marking machines to trade mark each good fruit so that it is connected directly with the advertising.

There is profit in producing good fruit, but the fullest profit is to be obtained only when it goes to market in the company of other good fruit. Good advertising has interpreted the BLUE GOOSE trade mark to mean to the public "Uniformly the Best" citrus fruit out of Florida.

To those growers for whom it markets every transaction in which they are interested is an open book in the Orlando offices of the American Fruit Growers Inc. Growers are individually welcomed at headquarters and all telegrams and original records on their transactions are open for inspection.

If you are interested in our services we will be glad to have you call at our office, or to have one of our representatives call upon you and explain our service in detail.

American Fruit Growers Inc.

Orlando



Florida

INDIAN RIVER FRUIT NUMBER

Good Crops Deserve Protection

Good crops which bring high prices are always the result of eternal vigilance on the part of the individual grower. After bringing a crop to the point of development where insect pests and plant diseases will attack it, don't take chances of losing all you've gained by using inferior insecticides.

Spray with **EMULSO**

the best crop protection.

Kills White Fly and Scale Insects

Aphis Warning

Be on the lookout for aphis on the new growth and if they appear, dust with Niagara A-1 Nicotine Mixture. This mixture contains the equivalent of 7½% Black-leaf-40 nicotine sulphate in the most desirable form. It will pay you to have a few cans on hand ready for the aphis.

Write to the service Department, Peninsular Chemical Company, for schedule showing when and how to spray for best results.



There is every assurance that the Citrus Industry of this state is on a firm substantial footing. The grower may expect fair prices for his product this winter and in the years to come.

The forward looking planter will therefore lay his plans to round out his acreage and right now reserve the choicest trees to insure his getting exactly what he wants.

"Glen Trees Grow"

Glen Saint Mary Nurseries Company

Offices:

Tampa,	Winter Haven,	Orlando,
8th Floor	First State	Orlando Bank & Trust
Citrus Exchange Bldg.	Bank Bldg.	Co. Bldg.

Over forty-two years of Satisfied Customers has made this the largest

Citrus Nursery in Florida.

**\$1.50
EACH**

**Delivered Anywhere
in the United States**



Sealdsweet **JUICE EXTRACTOR**

It solves the problem of extracting the juices from Florida oranges and grapefruit.

It is easy to operate, easy to clean, and economical in cost.

It is adaptable for both home and fountain use—clamps right onto the kitchen table or fountain stand.

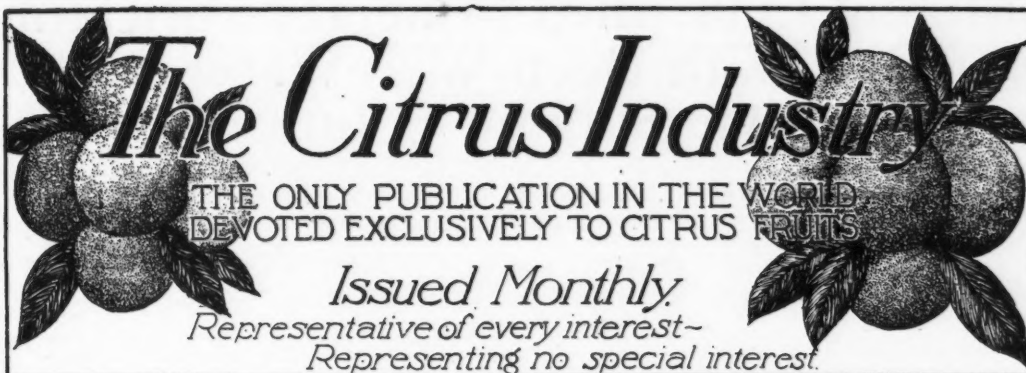
The Florida Citrus Exchange is manufacturing and distributing this extractor at practically a cost price, to encourage greater consumption of Florida's food-fruits. It is offering it to the public as the best citrus juice extractor that can be made for the money.

Sealdsweet juice extractors can now be purchased from the Florida Citrus Exchange, Tampa, Florida. Cash, check or postal money order should accompany order.

FLORIDA
CITRUS EXCHANGE

A cooperative marketing association of 7,000 citrus fruit growers

Headquarters at Tampa



Vol. 6

TAMPA, FLA., FEBRUARY, 1925

No. 2

Market In Great Britain for Grapefruit and Oranges

Imports of grapefruit into the United Kingdom continue to increase rapidly, according to figures of the recently published annual statistical report of the Board of Trade, states K. A. H. Egerton, Clerk, American Consulate General, London, England, in a report to the Department of Commerce. During 1923, Great Britain imported 50,000 cwts. (cwt. equals hundredweight) of grapefruit, an increase of nearly 59 per cent over 1922 imports. Official figures for 1924 are not available but one large importer expresses the opinion that the sales of grapefruit have continued to increase throughout 1924. In 1923, the United States supplied 56 per cent of grapefruit, or about 28,000 cwts. as compared with 19,000 cwts. in 1922, when we furnished 61 per cent of total imports.

The past year has seen a number of advertising schemes inaugurated in England for advertising fruit, and it is thought that a considerable development in this direction will probably take place in the near future. The Fruit Brokers Federation of Great Britain have started an advertising scheme called "Fruit Trades Federation Scheme" which calls for a compulsory levy of $\frac{3}{4}$ pence (about half a cent) a package on both the grower and the salesman or broker on oranges, onions, grapes, tomatoes, pomegranates, melons, apples, and pears from certain sources including the United States. American growers contribute toward this scheme in case of apples, pears, and

oranges but not grapefruit. New Zealand growers are pushing their apples in this manner, and South African growers their fruits, including grapefruit, while Australian growers have accepted it as a means of advertising their apples and pears.

Besides these cooperative schemes Mr. Egerton adds that there is one London importer of American grapefruit who is spending considerable money in giving publicity to particular grapefruit. The contribution method of advertising fruits seems to be working fairly satisfactory, and if American grapefruit growers wish to increase their exports to England, it might prove wise to consider co-operating with Fruit Brokers' Federation of Great Britain unless they consider it better to inaugurate on a cooperative basis advertising campaigns to increase the demand for the best grades of American grapefruit in the English market. (Interested concerns may obtain the exact address of the Fruit Brokers' Federation by addressing the Foodstuffs Division, Bureau of Foreign and Domestic Commerce, Washington, D. C.)

Mr. Egerton feels that the British public is more educated in the use of grapefruit than a year ago. Consumption has increased and more discrimination is shown in the taste for the best fruit. A year ago, the smaller fruit from South Africa, of inferior flavor and juiciness, sold easier because smaller and cheaper; this year, according to one large

English importer, the demand for larger fruit is rapidly increasing and retailers are giving more attention to buying the best qualities irrespective of size.

Emphasis should again be put on the necessity of educating the British housewife to different methods of serving grapefruit, especially ways in which economies can be effected. Grapefruit is still expensive and regarded as a luxury not to be indulged in too often. Mr. Egerton emphasizes this point by the following: Two large expensive grapefruit, if served in glasses, will be sufficient for six or seven persons whereas three or four fruits would be necessary when served in the usual manner. The grower can also stress the superiority of the flavor of grapefruit, also its health-giving qualities in such climate as that of England.

Though grapefruit consumption in Great Britain has increased rapidly during the past four years, it is still low compared to United States' consumption and constitutes a very small percentage of citrus fruits in demand by the British. The per capita consumption of citrus fruits in England is small, and but a small proportion of grapefruit is consumed in comparison with oranges. The future of the British market is important to the American grower. Though citrus fruits consumption is gradually increasing, there is a certain amount of competition for grapefruit from the United States. American

(Continued on page 52)

Mixing Emulsified Mineral Lubricating Oils With Deep-Well Water and Lime-Sulphur Solutions

By W. W. Yothers, Entomologist, Fruit Insect Investigations, Bureau of Entomology,
and J. R. Watson, Pathologist, Fruit Disease Investigations,
Bureau of Plant Industry

SUITABILITY OF WATER AVAILABLE FOR SPRAY MIXTURES

More than half of the citrus groves of Florida are located in artesian-well districts. A large proportion of the finer grades of fruit are grown in groves that are dependent wholly or in part upon water from deep wells for spraying purposes. The water from these wells is known as hard water, containing compounds of calcium, magnesium, sulphur, and other minerals in such proportions that the ordinary or unstabilized oil emulsions will not mix with it unless the water has been previously treated.

Methods of Treating Deep-Well Water

For several years the citrus growers treated the water with caustic-potash fishoil soap before the emulsion was added to it. This method consisted simply of adding soap to the water until no free oil or greasy scum formed when the emulsion was poured in. The quantity of soap necessary to accomplish this varied for the different wells, and each grower had to determine this by trial. A small but measured quantity of soap was dissolved in a barrel of water and left standing a few minutes before the emulsion was added. If a greasy scum formed, the quantity of soap was insufficient. For the next trial a larger proportion of soap was used and the emulsion added as before. This was a rather expensive method, since the water from some deep wells required from 4 to 6 pounds of soap to 50 gallons, while most of them required between 1 1/2 and 3 pounds each.

A less expensive method was desirable, and it was found that a combination of caustic soda and fishoil soap gave most excellent results. Considerable experimental work proved that 8 ounces of caustic soda and from 1 to 2 pounds of soap would be sufficient for any deep-water well in Florida thus far tested. The caustic soda was dissolved in a small quantity of water, which was then poured into the water to be used for spraying. The soap was likewise dissolved in a

small quantity of water, which was then added to the water already treated with the caustic soda. After this mixture had stood about a minute the emulsion was added. This method has never been known to fail. It proved satisfactory even in slightly brackish water at Miami Beach.

Value of Combination Sprays

In the citrus-growing sections of the southeastern United States and the West Indies it is often necessary to spray for rust mites with some form of sulphur and at about the same time to spray for white flies and scale insects with an emulsion made of lubricating oils. For many years soda-sulphur and potash-sulphur solutions have been combined with the oil emulsion for this purpose with reasonably satisfactory results. The oil emulsion is only partially effective against rust mites, while the soda-sulphur has little or no effect upon white flies and scale insects, at the rate of dilution usually employed. This mixture is compatible, and the resultant spray material contains no precipitate when soft waters are used. The soda-sulphur solution, according to the experiments, will not render deep-well water miscible with oil emulsion. It can, however, be substituted for the caustic soda in the formula wherein caustic soda and fishoil soap are used. When the mixture is satisfactory, it is unnecessary to use an agitator in applying it to citrus trees. The likelihood of injury following its use is no greater or little greater than when each material is applied separately at about the same strength or perhaps a slightly greater strength. Numerous examinations extending over more than 10 years have shown that this combination spray is just as effective against rust mites, white flies, and scale insects as when the materials are applied separately.

Stabilized Oil Emulsions.

While this combination has been generally satisfactory, the results indicate that the soda-sulphur or potash-sulphur solutions when applied alone are not very satisfactory as a spray to control rust mites. At any rate, they have never been found to be so

satisfactory as the lime-sulphur solution. It was therefore thought probable that a better combination spray would result if the oil emulsions were used with the lime-sulphur solution, and that the combination would retain the better properties of each spray.

Although any good unstabilized oil emulsion will mix with the soda-sulphur and potash-sulphur solutions, this is not the case with the lime-sulphur solution. After much experimentation and several years of practical application in citrus groves it has been found that an oil emulsion which has been stabilized with any one of several different colloidal substances will mix with practically all deep-well waters in Florida. These stabilized oil emulsions will also mix with lime-sulphur solutions, making a combination spray for white flies, scale insects, and rust mites. Experiments were conducted from 1916 to 1919 to determine whether an oil emulsion could be mixed with a lime-sulphur solution to make a satisfactory combination spray. While these experiments were under way, Jones obtained a patent covering the use of glue as a stabilizer for oil emulsions so that they will mix with lime-sulphur solutions. This combination has been very effective in controlling red spiders on deciduous fruit trees in California.

Methods of Applying Colloidal Substances.

Experiments conducted by the writers during the past six years show that certain colloidal substances, such as casein, milk, skimmed-milk powder, gelatin, corn meal, wheat flour, corn starch, and laundry starch are equal to glue as stabilizers in rendering oil emulsions miscible not only with deep-well waters but also with lime-sulphur solutions at various dilutions ranging from 1-10 to 1-100.

These materials may be divided into two classes:

- (1) Those which are most effective when not heated to 170 deg. F., such as casein, gelatin, skimmed-milk powder, and glue.
- (2) Those which are most effective

THE CITRUS INDUSTRY

Seven

ive when heated almost to the boiling point, such as cornstarch and laundry starch, wheat flour, and corn meal.

There are several methods of using these materials as stabilizers. Perhaps the most practical is to add them to the emulsion just before it is to be poured into the spray tank of diluted lime-sulphur solution or deep-well water. If this method is followed, all danger from fermentation or other deterioration is avoided.

To use the materials that do not require heat, simply dissolve them in either cold or hot water and then pour the solution into the emulsion.

To use the materials that require heat, it is necessary to make them into a paste by heating; afterwards they may be added to the emulsion. These stabilizers may be added to the emulsion just after it has been made and barreled. The same directions for their use should be followed as when they are to be used at once. When this method is used, if the emulsion is to be kept more than three or four days in summer or for a somewhat longer period in winter, a strong preservative should be added to prevent fermentation. For this purpose add from three-fourths to 1 per cent of pure carbolic acid, or about the same of liquor cresolis compositis. The stabilized emulsions deteriorate rapidly, and they should be used soon after mixing. The operator should proceed on a small scale at first and gradually enlarge the operations as success justifies.

It is also practicable to add glue or any material which requires heat to the oil, water, and soap, when these are to be heated to make the emulsion. Such a formula is as follows:

Preparation of Boiled Oil Emulsion
Paraffin oil or lubricating oil...2 gals.
Water1 gallon
Caustic-potash fishoil soap...2 pounds
Glue (or other stabilizer)1 pound

Put the oil, water, soap, and stabilizer into a kettle or other vessel that will stand fire and heat to the boiling point. While still very hot, but after removal from the fire, pump the material into another vessel with a bucket pump and then pump back again. The quantities stated in the foregoing formula are for use with about 200 gallons of water or with the same volume of diluted lime-sulphur solution. If an emulsion thus made is used in a few days, no preservative is needed; otherwise a preservative will be necessary to prevent fermentation.

In order to render oil emulsions miscible so that they will mix with either deep-well waters or diluted

lime-sulphur solutions, the following quantities of the various stabilizers are required for each 3 gallons of emulsion:

Proportions of Stabilizing Substances
Glue1 pound
Skimmed-milk powder.....1 pound
Casein8 ounces
Wheat flour1 pound
Cornstarch1 pound
Laundry starch1 pound

It is not necessary to limit the use of these stabilizers to a single material. A portion of one stabilizer can be used with a portion of another, but the required quantity of the combined materials should always be used. Thus, 8 ounces of glue may be used with 8 ounces of wheat flour or 4 ounces of casein. The use of stabilizers in smaller quantities has nearly always failed to produce satisfactory results.

There are several oil emulsions on the market in Florida which will mix with deep-well water and also with lime-sulphur solutions. Therefore, the citrus grower may either make the emulsion required or purchase it ready for use.

To use these stabilized oil emulsions with lime-sulphur solutions, the following procedure should be observed: Fill the spray tank nearly full of water and add the required quantity of lime-sulphur solution, after which the stabilized oil emulsion should be added. If a sufficient quantity of stabilizer has been used, the resulting precipitate of calcium soap should be very fine, and no greasy scum will come to the surface. If an insufficient quantity of stabilizer has been used, the precipitate will be coarse and granular, and in some cases a heavy oil mass will float on the surface. It is necessary to agitate this combination slowly while it is being applied.

To use a stabilized oil emulsion with deep-well water, all that is necessary is simply to add it to the water in the spray tank. Very little if any precipitate will form if the emulsion has been properly stabilized, and no agitator is necessary in applying it to the trees. If a greasy mass forms, the mixture is not perfect and should not be used.

Experimental Results and Their Commercial Application.

Results obtained from experimental work show that about the same quantity of stabilizer is required to render an emulsion so that it will mix either with deep-well water or with various dilutions of lime-sulphur solutions ranging from 1-10 to 1-100.

When the combination of oil emulsion and lime-sulphur solution is properly made, it is a reasonably safe spray for either citrus foliage, branches, or fruit. If it is not made correctly and is applied to the trees, considerable injury may follow. This spray in the hands of a competent grove manager will give satisfactory results, but it is certainly not a combination that is adapted to the use of irresponsible or incompetent grove managers.

This combination spray is highly effective when used against scale insects, white flies, and rust mites. Several citrus growers are using it exclusively in spraying for the control of insect pests and mites attacking citrus trees. The fungicidal effect of this combination spray is no more marked than when an equivalent dilution of lime-sulphur solution is used alone.

The stabilized oil emulsions have met with much favor among many of the largest citrus growers in Florida, who no longer find any difficulty in using the untreated water from deep wells.

TO ENCOURAGE SATSUMA CULTURE IN SUWANNEE

Messrs. White and Nix, industrial agents for the Seaboard Air Line railway, gave an interesting illustrated lecture on Satsuma oranges at the courthouse in Live Oak recently showing the Satsuma from the time of grafting on to the trifoliata stock, right on through the various stages of growth, the picking and packing of the fruit and the method of eating.

The Satsuma is said to thrive in only a limited part of the country, in which North and West Florida are included, and it has been fully demonstrated by a few individual growers that Satsumas do exceedingly well in Suwannee county. Coming as they do before the oranges of South Florida are on the market, there is a good demand for them, and it is the desire of these officials of the Seaboard to get everyone in the county interested in growing them, if only a few for home use, as the sight of growing orange trees is a welcome one to all newcomers to the state, who feel that they are in Florida only when they see their first oranges.

Drain all boiled vegetables as soon as tender—they become soggy if allowed to stand undrained after cooking. The water drained off may be used for soup stock in creamed soups.

Urges Campaign to Develop Foreign Markets for American Grapefruit

An organized campaign on the part of the American grapefruit industry is needed to popularize and increase the use of American grapefruit in Great Britain, declares Edwin Smith, who is now making a survey of foreign fruit markets for the United States Department of Agriculture.

The plan involves an educational campaign which will emphasize to foreign consumers the food value of the fruit and methods of preparing it for use, backed up by a regular supply of good quality grapefruit under brand, and to sell at not more than \$4.75 delivered or \$3.50 f. a. s., New York.

It is suggested that to introduce grapefruit to wholesalers that do not buy in the port markets, small parcels should be turned over on consignment to these wholesalers, matters of freights and port charges to reach interior points to be handled by a special representative of the American interests.

If the industry is not prepared to carry out such a program, then it should proceed as far as it can, Mr. Smith says. "It is considered of very great importance to give the trade a regular supply of good fruit marked so as to identify its source. Great Britain is a good market for quality preference, once a reputation is established, particularly with regard to grapefruit."

Sizes 80's and 96's and of bright color are reported as mostly in demand in the British markets, the russeted finish being a slow mover. Mr. Smith says that the eating quality of the fruit on the market is inferior, and that he is greatly impressed with the necessity of giving the markets a steady supply of good fruit, identified with its source. Few consumers as yet know how grapefruit is eaten. The wholesale merchants frequently say that the best fruit comes from Porto Rico or the Isle of Pines, but the retailers do not seem to care where the fruit is grown so long as it is small, bright, smooth and low in price.

"The greatest demand for grapefruit is in London, on the part of

American tourists. Birmingham has witnessed an increase in the use of the fruit, and most of the wholesalers there believe that there is a good future for it. There has been an increased use of grapefruit in Liverpool and Manchester during the past three years, but the market needs further development inasmuch as supplies of more than a few hundred packages per week glut the trade. An increased demand from Glasgow is also reported.

"Wholesale prices during December ranged between \$3.50 and \$5.40 per case on Jamaican and Porto Rican fruit. Wholesalers report that the demand is governed by the weather, and fluctuates markedly. At times there is a great run on the fruit, and it sells from \$6.00 to \$7.00, but a cool spell of weather brings about a decreased demand, the fruit moving at around \$3.25 to \$3.50. Retail prices on 80's and 96's are usually 8c to 12c, each and occasionally as low as 6c. For the most part the shops in the poorer districts sell the fruit for 8c each, and in the better districts 12c. At 8c each, and allowing 5 per cent for deterioration and waste, a case of 80's will realize the retailer \$5.87, so that he must buy for less than \$4.70. Sales drop off when the fruit reaches a retail price of 10c to 12c each."

The British fruit trade now has on a cooperative advertising campaign which emphasizes the health-giving qualities of fruits. Their advertising slogan is "Eat more fruit and keep fit." The Britisher is peculiarly susceptible to the health appeal.

"If increasing demand for American grapefruit is left to the ordinary course of affairs, the road will be a long one because there is now no systematic method of supplying the market," Mr. Smith says. "Supplies of American grapefruit reach the British markets only when prices in the United States are low. At such times the supplies are likely to be heavy, a glutted market condition de-

velops, and everyone becomes discouraged with 'the export game.' "

HULL, ENGLAND, AN IMPORTANT BRITISH FRUIT PORT

Hull is probably the second port in the British Isles for the importation of fruit and vegetables, with London ranking first, states Vice-Consul Albert W. Scott, Hull, England, in a report to the Department of Commerce. There has been much development in the Hull fruit trade during the past three or four years, especially with respect to fruit from the United States. Large quantities of American apples are now imported from both the Atlantic and Pacific Coast States, as well as oranges, grapefruit, lemons, and other fruit from California and Florida. There appears to be every indication that the demand for American fruit from Hull importers is rapidly increasing, and Hull fruit importations from the United States in the future should become more important. Fruits from various parts of the world enter the Hull market at different periods and care should be taken to determine the proper time for marketing in order to avoid a congested market.

Imports of apples and oranges at Hull are shown in the following table which gives Customs Statistics of imports at Hull for 1913, 1921, and 1922:

Fruit (not liable to duty) cwt.	1913	1921	1922
Apples, raw "	65,384	202,452	255,285
Oranges, raw "	567,081	643,239	674,618

The Consul states that purchases of fresh fruits and vegetables, however, are made almost entirely through brokers or commission agents who receive goods on consignment for sale by auction or otherwise to importers and dealers.

Before cooking head vegetables and greens, put them in cold water for an hour; add 1 tablespoon of vinegar to the water. This removes insects. Finally wash the vegetables very carefully.

Some kitchens were built as though the women who use them are trying to reduce.

A Billion Dollars A Year to Feed Insects

By a Government Official

Insects, beyond a doubt, are the most numerous of all visible creatures. It has been estimated that there exist ten million kinds of insects on the earth.

Fortunately, not all insects are inimical to man. Otherwise we should all have perished long ago under their combined assaults. Enough of the vast number, however, are such formidable enemies as to force themselves into practically every phase of man's activities. They devour his growing crops, pillage his stored provisions, riddle his household goods and his raiment, worry and even slay his domestic animals, and, sad to say, not content with all this havoc, they invade his very person, often infecting him with loathsome and sometimes fatal disease.

Food Bills of Insects

Although insects are small in size as compared with other creatures, because of this they may not be disregarded as enemies of man. That such a thought is far from the truth may be appreciated from a statement of money losses due to their depredations in the United States, which has been compiled from what are believed to be reliable sources. According to this statement, the total annual cost to the farmers for feeding the insect pests of the United States is more than \$1,000,000,000. Grasshoppers alone cause a \$50,000,000 yearly loss to the farmer. The lowly potato bug eats \$8,000,000 worth of farm products in a year. Food of the chinch bug, the Hessian fly, the codling moth of the apple, the San Jose scale of the fruit trees, the cotton boll weevil, the cotton boll worm, the grain weevil, and the cattle grub, costs our farmers from \$10,000,000 to \$60,000,000 a year for each kind of insect named.

These figures do not include the indirect losses caused by such insect-borne diseases as malaria, dengue and typhoid fevers; neither do they take into account the losses on products in storage, natural forests, forest products, etc. Thus it will be seen that the annual bill for insect maintenance in the United States

should be a matter of deep concern to the taxpayers, and it becomes obvious immediately why Congress has appropriated for the current fiscal year a sum in excess of \$2,000,000 for the work of the Bureau of Entomology, which organization is primarily devoted to the combat with the insect foes of man.

Effort to Control

The Bureau of Entomology maintains more than 70 field laboratories distributed over 35 states. At each of these stations the insect pests of importance to that particular region are studied by men scientifically trained in entomology and versed in agriculture. Careful investigations of the life histories and habits of the insect pests are made, and the results accurately tabulated and compared. The information obtained is disseminated among farmers for their guidance in planting and sometimes in harvesting their crops.

Having at hand a full knowledge of the habits of a given insect, it usually becomes possible to devise some practical way of destroying it in sufficient numbers to prevent it from robbing the crop grower in such degree as to deprive him of the fruits of his labor, although it should be understood that an insect seldom, if ever, is completely exterminated by the efforts of man.

Geology has shown us that our present-day insects inhabited the earth in practically their present forms millions of years before man made his appearance here. They survived conditions during long ages when man could not conceivably have maintained his existence, and as a result of this long ordeal the insects have acquired an adaptability to environment and a skill in evading the attacks of their enemies which are far beyond the ability of man, even with the aid of his numerous ingenious artifices, ever to overcome.

The Insects' Side of the Question

Those who attempt to grow crops or gardens frequently remark that there seems to be one more insect pest for every variety of cultivated plant, and that this condition of affairs but recently has begun to prevail. That the insect enemies of growing

crops are increasing in variety, it not in number, no doubt is perfectly true. Many of the insects were present in America, living on the native plants, before man begun to cultivate the land. They did not become pests, however, until man's conversion of the natural dwelling places of the insects into vast grain fields, orchards, or vegetable gardens robbed the insects of their ordinary food, and so altered their environmental conditions as to force a more or less complete change in their habits of life. There are now millions of acres of corn and wheat where nothing but prairie grass grew a few hundred years ago, while thousands of acres at present are devoted to the production of apples and other originally exotic fruits, where the native forest trees of the land reigned supreme before the advent of the white man in the United States. The production of cotton, really a sub-tropical plant, throughout the southern portion of the United States, is another example of the great changes wrought by the efforts of man to produce in bulk those plants or products most suited to man's needs or fancy, without sufficient regard to the result upon the insects native to the soil. All this has resulted in a more or less complete upset in the nice biological balance ordinarily maintained by nature, and, therefore, we should not be surprised that these crops artificially grafted on the plant population of the country should be speedily devoured by native insects which naturally prefer not to starve where their ordinary food plants have been removed.

In addition to this system of man's meddling with nature's schemes, the space-annihilating transportation facilities introduced by man have furnished means for the compulsory distribution of some native insects which originally were harmless or beneficial in their habits. For example, the ordinary potato bug was accustomed to feed upon prickly weed of the potato family in New Mexico, and still is to be found there in its original condition. It is now spread all over the United States. It is very probable

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The Grower and His Reward

Address by Hon. L. M. Rhodes, to the Chamber of Commerce at Fruit Growers' Luncheon, Winter Haven, Fla., Jan. 14

During the slow, dreamy, sluggish ages of the past, when the famous public speakers from Demosthenes to Webster and Gladstone were regaling and enlightening the minds of the world with logic, and stirring its population to action with oratory, it was easy to entertain and instruct an audience. During this period each community was practically a little world to itself. Slow, inaccurate, uncertain methods of communication, even counties and states were ignorant of what their neighboring sections were doing. There was very little entertainment available to the average town or community, so it was a great event when public speakers brought messages containing news, the endeavors and achievements of other sections of the country or discussed new scientific, industrial, economic or political questions, and they were hailed with joy, listened to and appreciated.

But in this reckless, checkless, lightning age with the telephone, telegraph, wireless, radio and the press making the news of the world available to everyone, and great orations and other entertainments are brought to the homes of teeming millions for the mere trouble of listening in, it is more difficult to obtain and hold the attention of an audience than in any period since the morning of time.

And especially in the discussion of subjects pertaining to the oldest art or vocation of man; an industry that has been kept in the limelight by the press, extolled by the politician, commended from the pulpit, authorized by Deity and patronized by everybody. It is difficult to tell the old story in new language.

Agriculture being the world's basic industry, the source of food and raiment for all humanity and the only vocation that can guarantee the staff of life to the people of the earth and prevent them from being victims of starvation should be fostered, encouraged, developed, maintained, protected and made profitable, and fruit growing, which was founded in the Garden of Eden and practiced later by Noah and every year since, should likewise be fostered and made profitable.

American agriculture and horticulture has arrived at a period in their existence when a maximum produc-

tion is yielding a minimum profit, when an enormous investment is yielding no net income, when the farmers as a whole are working for nothing or they are furnishing their investment and equipment for nothing.

The value of all agricultural property in 1919 was \$79,600,000,000. It has depreciated in value in 1924 to \$59,400,000,000. Of this total farm wealth of \$79,600,000,000 the farmers only owned \$48,500,000,000. In 1924 this \$48,500,000,000 had depreciated to \$33,400,000,000. This is a depreciation of the total agricultural wealth of \$20,200,000,000 in five years or an annual loss of \$4,040,000,000. It is a loss on the wealth that the farmers really owned of \$15,100,000,000, or a loss per annum for the last five years of \$3,020,000,000. The present agricultural debt is \$14,000,000,000, on which the farmers are paying an average of 6 per cent, or \$840,000,000. If the debt of \$14,000,000,000 was deducted from the \$33,400,000,000 which the farmers hold, it would leave them less than \$20,000,000,000.

During these five years the average net income per farm per day was 77c, or 15 2-5c per capita for our farm population, and in 1919, which was the best agricultural year that the farmers of the United States ever had, with an income of \$15,830,000,000 and the net income was only \$4,954,000,000 but in 1920 the gross income was \$12,782,000,000 and the net income was only \$438,000,000 and during these five years the average farmer who owned his farm did not receive as much as his hired man, and his investment paid him a little interest in 1919, nothing in 1920-21-22 and only 1.4 per cent in 1923.

In spite of the fact that there were 15,000,000,000 days labor performed on the 6,452,000 farms in these five years and the total investment was \$79,600,000,000 the gross production for these five years was \$60,223,000,000 and the total agricultural exports were valued at \$13,763,204,000, and for the last 25 years the agricultural exports have amounted to \$37,177,000,000 or 50 per cent of the total exports, and made us the creditor nation of the world; the farmers find themselves at the close of this five years of enormous production and gigantic exports, in the sackcloths and ashes of depres-

sion, depreciation, poverty, debts, bankruptcy and loss, and in the middle of the world's greatest period of prosperity, for labor, commerce, industry and transportation, while agriculture languishes to decay.

It takes all the income from a 200-acre wheat farm to equal the income of a plumber working 250 days in the year in New York City, resting 115 days and working only 8 hours a day. It takes the total income of a 100-acre corn farm to equal the wage of a New York bricklayer for 250 days labor, or the income of a 300-acre oat farm to equal the income of a paper hanger in New York or it takes the gross income of a 100-acre cotton farm to equal the income of a skilled mechanic. No wonder that 1,200,000 people leave the farm annually and 52 per cent of all bankruptcy in Iowa, the imperial agricultural state, in 1923 were farmers, compared with 18 per cent in 1913.

Agriculture cannot long stand present conditions nor can industry and commerce expect permanent prosperity or even normal business conditions while one-third of our population have their purchasing power reduced one-half.

Our agricultural question today is a serious one. In fact agriculture is on trial for its life. Once we had our slavery question, then the problem of preserving and protecting our infant industries. Then we had our labor question, we settled the slavery question with fire and blood, our infant industries have become colossal giants, labor is reaping a golden harvest, while agriculture, the basic foundation of all business activities, has perplexing problems and grave questions waiting for solution. What are we going to do about it? Shall agriculture continue to be our basic industry? Shall it maintain the value of its hard-earned acres? Shall it continue to keep our cities, towns and villages alive? Shall it become prosperous and have an income commensurate with 20th century civilization and thereby continue to support and save the nation by being its maintenance in time of peace and its bulwark in time of war?

Or shall it exist merely to feed the mouths and fill the coffers of industry and commerce? Shall it give so

small a wage that every man of intelligence, energy and independence will be forced to seek the cities, crowding the ranks of industry? Shall Americans be repelled from the ranks of agriculture until the bars of immigration must be let down to bring the cheap peasant labor from Europe and Asia to till our deserted acres?

These are vital questions, they are fundamental and economic and should be honestly and seriously considered rather than made the political football of partisan politics. All the farmer's ills cannot be removed by legislation, much of their troubles requires a home cure. But when through legislative protection the manufacturer of farm implements can increase the price of their output 150 per cent in a decade, while the staple crops cultivated and harvested with this machinery have to be sold in the world's market at a price fixed by world's conditions, and in competition with the crops produced by peasant labor at an increase of less than 10 per cent in price in a decade, we must conclude that the farmer has allowed himself to be forgotten, in the councils of the nation.

The penurious income from agricultural investment, and starvation wages for farm labor cannot be changed by increased production alone, for small crops have brought the farmer more money than the large ones, nor can the farmer succeed practicing a primitive wasteful method of marketing, paying the price demanded when he buys and accepting the price offered when he sells.

All students of agricultural economics are agreed that our marketing system is too cumbersome, too indirect, too unrelated and that there is too much slack in the line between production and consumption, that toll gates must be removed and the bridge shortened between the producer and the consumer.

One remedy for our agricultural difficulties seems to be better distribution and orderly marketing. This applies to citrus fruits.

It takes cooperative effort to change long-established systems and to right firmly-intrenched wrongs; therefore the farmers are slowly but surely turning toward cooperative marketing. Every student of economics, and every one familiar with marketing systems knows and are agreed on one thing: that there must be some changes or agricultural decay will follow, and when agricultural decay comes, the nation will crumble and fall. So it is imperative that we

should improve our methods. And there is not an industry, profession, vocation or calling, on earth, outside of the insane asylum, that would toil, produce, distribute and sell their products for five years without any profit, and at the same time lose billions of dollars in depreciation of value of equipment, that would not either quit business or change their system.

There are, in round numbers, 260,000 acres of oranges, grapefruit and tangerines in Florida, divided into 30,500 groves contain 11,000,000 bearing and 7,000,000 non-bearing trees. There is also some acreage of Satsumas in north and northwest Florida. These citrus groves produce an average of nearly two boxes to the tree, or a little more than 20,000,000 boxes.

Under normal conditions the crop should net the grower at least \$30,000,000, and other people in the state would receive at present prices for freight, express, boat charges, insurance, interest, taxes, labor, salaries, picking, handling, selling, advertising, auto expense, repairs, inspection, light, power, paper labels, nails, straps, strips and crates, not less than \$35,000,000, making the total income to the state from the industry \$65,000,000. There is approximately \$60,000,000 more received by people outside of Florida for advertising, transportation charges, wholesale and retail profits. So at present the ultimate consumer is paying \$125,000,000 annually for Florida citrus fruits. This is Florida's most valuable soil crop and one of its greatest assets, and is no small industry, for it amounts to about \$65 per capita for the entire population of the state.

The possible production in the future is enormous. There is perhaps no county in Florida that does not grow some citrus fruit. But there are 33 counties that produce oranges, grapefruit and tangerines for commercial purposes. These 33 counties have a land acreage of 22,227,320 acres. Undoubtedly 25 per cent, or 5,500,000 acres of this, would grow citrus trees. The 30 counties in north and west Florida that do not grow oranges, grapefruit and tangerines for sale in car lots have a land area of 13,928,540 acres. Certainly 3,500,000 acres of this land would grow Satsumas. So there is not less than 9,000,000 acres of land in Florida that will grow citrus fruits.

There is less than 170,000 acres of the 260,000 acres now planted to citrus groves in the 33 counties in bearing. The smallest one of these counties has an area of 187,250 acres. So

if all the bearing citrus trees in these 33 counties were crowded into the smallest citrus county, there would be 17,520 acres left. The 5,500,000 acres of citrus land in the citrus belt gives us room for more than 20 times as many trees as we now have. If we count the 3,500,000 acres of land suitable for growing Satsumas, we could have 35 times as many acres in citrus as we now have. And only 170,000 of the 260,000 acres are in bearing. There is enough citrus land in Florida to grow 50 times as much citrus fruit as we are now producing. This, of course, will not be done, but with 7,000,000 trees already in groves to come into bearing, with new developments going on rapidly in the citrus sections, and with the eyes of the world on Florida, the lure of the climate and the charm of the citrus environment, the industry will steadily grow and its production increase. However, the present production of oranges in Florida and California would only furnish one orange for each person in the United States every six days, or less than an orange a week, and the grapefruit produced in the United States will supply only four grapefruit per capita per annum.

The citrus crop of the world will furnish only one box of fruit per annum to every 30 people, yet there has been and is an ample production of citrus fruit for present demand. There is also room to expand the industry and increase production in Florida, for not more than one-half of one per cent of the population of the world are eating citrus fruits, and less than ten per cent of the people of the United States are consuming them. It is extremely difficult to obtain recent and accurate figures as to the world's production of citrus fruits, but it is safe to say that there has been 100,000,000 boxes of Florida size produced in a single year or more. That Spain, Italy, Japan, Palestine, Australia, South Africa, Cuba, Porto Rico and the West Indies are all competitors of the United States, and that all these countries could increase their production of citrus fruit.

One of Florida's most vital problems is the economical production, systematic distribution and profitable marketing of citrus fruits. The citrus industry is part of the industrial, economical and financial life of the state, and no industry operating on a business basis will increase production, or even continue to produce at all, when it is forced to sell at a loss, or without a profit. Better market-

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The Citrus Industry

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DONT KILL THE MARKET

So advises H. G. Gumprecht, manager of the Manatee County Citrus Sub-Exchange, who contends that the volume has been greatly reduced since the original estimate owing to waste caused by the recent wet weather and also that the oranges are so small it takes so many more to make a box. There never was a time during the past two months when the excessive movement was justified, especially of oranges, which benefited no one but the railroads.

There is no occasion to rush oranges from now on for even if the grower should lose half his crop by drops or otherwise, if he nets more than double the present price on what is left, he will net more for his whole crop which after all is all that counts. Every box of oranges from now on should bring a good profit to the grower — providing all the shippers recognize the law of supply and demand and regulate their shipments accordingly which would so stimulate the market that within a short time the demand would exceed the supply. The usual California competition will not be noticeable this season and Florida late oranges and Valencias will bring real money.

The grapefruit situation is somewhat different. For various reasons the demand so far has been limited, but with moderation of the winter weather in the North and more extensive advertising a greatly increased consumption can be expected. Extraordinary precautions are necessary to restrict the shipments to quality and keep the quantity in line with the created demand. In this way a large volume of grapefruit can be sold at a profit to the grower.

All Florida shippers from now on should agree, regardless of their affiliations, on some consistent shipping policy and not try to ship the whole crop in a few weeks. It can't be done at a profit and spells disaster for all. Let us all work together for the betterment of the

industry. Unity of action along these lines will pay big dividends.

GREAT CITRUS EXHIBITS.

Florida has just passed through the greatest series of citrus exhibits ever known in the state or in the world.

The South Florida Fair at Tampa was unquestionably the greatest exposition of citrus fruits ever held. It brought together a greater and more varied display of citrus fruits than had ever before been assembled in one place. In point of quality and appearance, the fruit exhibit was a revelation even to Florida growers themselves, while to thousands and thousands of northern visitors who thronged the halls, the exhibition was truly marvelous.

The Midwinter Fair at Orlando, the Polk County Orange Festival at Winter Haven and scores of other county fairs and expositions throughout the citrus belt afforded opportunity for other thousands of winter visitors to see Florida citrus fruits at their best.

One most encouraging feature of all these exhibits was the improved appearance of the fruit shown, attesting the growing realization on the part of citrus producers that their fruit must show its quality to the eye as well as demonstrate it to the palate.

As a result of these numerous fairs and festivals, hundreds of thousands of visitors have come to realize in some measure the importance of the citrus industry to Florida and the extent to which other sections must depend upon Florida for citrus fruits.

It is safe to say that at least one million northern visitors to these fairs left with an entirely new conception of the magnitude of this industry and of Florida's importance as a supply depot for winter fruits.

THE INDIAN RIVER COUNTRY

The Citrus Industry takes a great deal of pleasure in producing in this issue a section devoted to the Indian River country of the East Coast. Briefly we have endeavored to outline the principal historical events in the settlement, development and progress of this important section of Florida's citrus belt.

For years, indeed since Florida first gained reputation as a citrus producing state, the Indian River and Indian River fruits have been household words in thousands of American homes, whose occupants have seen Florida only in their dreams.

Famous as it is for the production of citrus fruits of superior excellence the Indian River country is justly entitled to the section of this issue which is devoted to it and it gives the publishers of this magazine much pleasure to perform this delayed service for so important a section of the citrus belt.

The story of the early settlement and development of the Indian River section, we believe will be read with much interest and profit by readers of The Citrus Industry. The story of the Dummitt grove on Merritt Island, believed to be the original sweet orange grove of that

section and the only sweet orange grove which survived the great freeze of 1836, will also prove of much interest to every one interested in citrus culture or in the historical lore of Florida. The data upon which this story is based was secured from the personal memoirs of the earliest settlers of Merritt Island and is vouched for as authentic and accurate by old time residents there.

KILL THE BUGS

Citrus production, whether greater production, over production, or under production, is not the great problem which presents itself to Florida growers for solution. The matter of production will in large measure take care of itself. The demand at present is sufficient to absorb the present production. As the demand increases, production will increase in keeping with it, for Florida has only begun to realize the possibilities of production in citrus fruits. The present production can be doubled, trebled, quadrupled or increased tenfold if need be to meet the increasing demand. The production problem is a matter of easy solution.

The real problem with which Florida citrus growers must contend and one which they must solve if they would reap the profits to which they are entitled, is that of improved appearance. In juice and sweetness the Florida orange leads the world. The Florida grapefruit has no rival when quality of content is considered. This is true, and is recognized not only by Florida growers themselves, but by consumers outside the state. But the exterior appearance of the fruit is not always in keeping with its interior excellence.

Unfortunately, the consumers of citrus fruit, as of other wares, may judge by the palate, but they buy by the eye. They may know what Florida oranges are sweet and juicy, but they demand also that they present an attractive appearance. Every marketing agency knows this and endeavors to secure fruit of fine appearance as well as fruit of quality.

As long as shipments of Florida fruit run 15 per cent brights to 85 per cent russets, the grower will not attain that degree of prosperity which should be his. The ratio should be reversed. This can be done in one way only—by killing the bugs. Eradicate the bugs and you eliminate the russets, increasing your percentage of brights and fancy and swelling your profits.

Florida growers should declare war—grim, determined, relentless, unceasing war upon the bugs. Natural enemies, sprays, dusts and gasses are at the command of the grower, ready to enlist under his banners in the war upon the bugs. The sooner they are called into service the better will it be for the growers bank account and for the reputation of Florida fruits.

EXPORTATION OF VALENCIA ORANGES

During the past five years the production and exportation of oranges in Valencia have been tripled which will be seen from the following export figures: in 1919-20, 3,601,064 boxes; 1920-21, 6,271,439 boxes; 1921-22, 7,983,263

boxes; 1922-23, 7,967,829 boxes and in 1923-24, 9,417,278 boxes. Both the quality and quantity of the present crop are excellent, reports Assistant Trade Commissioner James G. Burke, at Madrid, to the Department of Commerce. Prices have been rising steadily, and both growers and exporters are pleased with their profits. Spanish tangerine growers are also having a prosperous year. Holland still is one of the principal buyers of Spanish oranges. During the crop year 1923-24 Valencia, Castellon, Burriana and Gandia sent 1,466,500 boxes of oranges to Amsterdam and Rotterdam. At least 50 per cent of the quantity shipped to Holland finds its way to the Rhine Provinces, the Ruhr and Westphalia.

The ultimate consumer may judge his fruit by the palate, but he buys by the eye. It does not matter how juicy nor sweet your fruit may be, if it lacks in appearance it will be a drug on the market when fancy fruit is selling at a premium. Produce bright and fancy fruit.

You may know that your russet fruit is just as juicy and sweet as the bright or fancy grades—but you can never make the buyer believe it. Produce more bright and fancy fruit. Spraying will do it.

Resolve now that your fruit next season will run more to brights and fancy and less to goldens and russets than the fruit you raised last year.

The sprayer, duster and gassing tent are handmaidens to increase the profits of the enterprising grower.

Fifteen per cent brights and eighty-five per cent russets is a record with which no grower should be content. Why not reverse the ratio? Kill the bugs and you can do it.

An underfed or sickly tree is a liability and not an asset to its owner. Properly feed and care for your trees if you would reap a profit from your labors.

Bugs are the worst enemy of the citrus grower. Kill the bugs and get brighter fruit. Spray 'em, dust 'em, gas 'em, as your experience and judgment teaches—but get 'em.

The time to ship fruit to the market is when the market is crying for fruit, not when the demand slackens and the supply exceeds the purchasing power of the market.

Don't overlook nor neglect the spring fertilization. Well fed trees will produce better fruit and more of it, with greater profit to the grower.

Feed the trees. Money spent for fertilizer is one of the best investments the citrus grower can make.

Disease may ruin your trees. Bugs will certainly ruin your profits.

The Banana Plant

Abstract From Anonymous Article in Bulletin of The Imperial Institute

The plants which produce the banana fruits of commerce belong to the genus *Musa* of which several species are known. Only two species, however, concerned in the banana fruit industry; these are *Musa sapientum* and *Musa Cavendishii*. To the former belongs the variety, "Gros Michel," which is the principal kind grown in Central America and Jamaica.

This variety is a rapidly growing herbaceous perennial, attaining a height which varies according to the richness of the soil in which it is grown, but may be as much as 40 feet, although the average in Jamaica is from 18 to 25 ft., and in Cuba, 12 to 18 feet.

It produces very large, rather straggling bunches of pointed fruits which are somewhat coarse as compared with the Canary Islands banana. They can, however, withstand a considerable amount of handling without damage, and as they can be exported without crates they are the most popular for market purposes. There is a colored form of this variety known as the "red" or "claret" banana for which there is a comparatively small demand.

Musa Cavendishii, or *M. sinensis*, commonly known as the Chinese, Cavendish, Dwarf or Canary Islands banana, is native to southern China, whence it has been introduced to the Canary Islands and to many countries in the East and elsewhere. The plant is much smaller in all respects than the "Gros Michel," attaining a height of only 10 to 12 feet, and this, together with its robust habit, renders it more capable of withstanding violent winds and hurricanes; it is, in consequence, adapted to cultivation in countries where these are likely to occur. Its fruit is much smaller not only as regards size of bunch but also in respect of the individual fruits, which are short and not so pointed as the "Gros Michel;" when mature they are deep golden-yellow, the flesh is "melting," aromatic, and of finer flavour than those of "Gros Michel," but the skin being more delicate is liable to injury during transport and for this reason the bunches are always exported in crates.

The apparent stem of the banana plant really consists of the basal portions of the leaf-stalks which overlap so as to form a protective sheath to the young leaves which develop within, and also serve in the place of

a woody stem to support them. Distinct leaf-stalks are formed above the sheathing bases which constitute the stem, and these support the large curving leaf-blades, or fronds, which are often of great size, attaining a length of up to 8 to 12 feet, and a breadth of up to 2 feet. The real stem of the plant is a thickened underground root-stalk, usually called the "bulb," from which the leaves and flower-spike spring and which gives rise to buds or "eyes" from which new plants are formed. As many buds or "eyes" arise from each root-stock a small colony of plants would originate from a single base if they were all allowed to develop, and each in time would form a root-stock of its own.

When mature, the plant produces an inflorescence (flowering stalk) from the root-stalk and this emerges from the center of the tuft of leaves and ultimately becomes the bunch of bananas. The inflorescence is a terminal spike with flowers arranged spirally in cluster, each cluster protected by a coloured bract. The flowers are of different kinds; those at the base are pistillate or female flowers and eventually develop into banana fruits; those at the upper portion are staminate, or male flowers, which fall off, leaving scars on the bare stalks; whilst a few intermediate ones are either hermaphrodite or neuter flowers, the former developing only small useless fruits. The flower-spike is at first erect, but the weight of the flowering head causes it to bend over and eventually to point vertically downwards. The fruits which succeed the flowers are arranged spirally on the stalk in groups or "hands," each "hand" consisting of from 10 to 25 individual fruits or "fingers." The plant bears but a single bunch of fruit in its life cycle and this in the case of "Gros Michel" may be from 50 to 75 pounds in weight, composed of from 6 to 9 "hands," and is occasionally much larger. The Canary banana bunches usually carry from 125 to 250 fruits and weigh about 25 to 65 pounds or more.

Panama Disease. The most destructive of the several fungus diseases to which the "Gros Michel" banana is subject is that known as the "Panama disease" or "banana wilt." This disease has caused enormous losses in Cuba and in Central and South

American countries, from Brazil to the United States border, except in the Santa Marta district of Colombia, where the plants are grown under irrigation. It is also prevalent in the Philippines and in Jamaica and strict control measures have had to be enforced. The disease is attributed to a fungus, *Fusarium cu bense*, which enters the plant at the root and gradually penetrates to the bulb, and later to the leaf stems. The presence of this fungus can be detected in the internal tissues of the "stem" and bulb by yellow, orange or red markings; and as its growth fills the vessels it stops the supply of water from the roots to the leaves. The diseased plants suddenly wilt, as if suffering from drought, and this is followed by rapid yellowing and subsequent browning of the leaves, which eventually fall against the stem. Finally the whole column falls and rots. In view of the serious nature of the disease, control measures should be adopted immediately the symptoms are detected and the affected plant should be dug up at once and destroyed by burning. The plants in the immediate neighbourhood of those affected should also be destroyed as, although they may appear healthy, the probability is that their roots are attacked, and it is better in any case to sacrifice them than to risk a spread of the disease. The soil in which the diseased plant was growing should be limed and the cleared area (for a distance of a chain all around) should be fenced off so as to completely isolate it, and no person should be allowed to enter the enclosure, as the disease is capable of being spread by soil adhering to workers' boots. Every part of the diseased plant should be burnt on the spot and should not be removed to other parts of the plantation, and all tools employed in cutting up diseased plants should be sterilized by heating, and workers hands, feet and clothes should be disinfected. A recent Government order in Jamaica requires that all banana trash employed in wrapping or packing bananas shall be destroyed by burning and shall not be removed from the various collecting centers, as mulching with infected trash has been a factor which has contributed to the spread of the disease. The persist-

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Guavas

By Frank Kay Anderson

It was down on the Riverview road near Tampa, the city of Cuban influences and Spanish nomenclature, that a footsore tourist hailed a man and woman in a Ford truck. Swinging up over the tail gate, the tourist seated himself comfortably on a sizeable box and conversed with the pair on the seat in front. Came a lull in the conversation. The stranger, his nostrils dilating slightly, inquired:

"What you got in this here box?"
"Guavas."

"So. Well, how long has he been dead?"

A Northern woman spending her first summer in Florida received a gift of a basket of guavas from a neighbor with minute instructions for preparing guava jelly, that most delectable and delightful table delicacy. A few days later the neighbor inquired whether or not the jelly-making had been a success.

The lady was evasive; she was sorry but she had not had time to make any. Later, in a burst of frankness, she confided how sorry she was that the neighbor's intended kindness had gone for nothing, but all the guavas most unfortunately had spoiled, and so quickly. The odor was "horrid."

Then they tell the story of how a family newly come from Ohio to Florida tried to get their local groceryman to accept responsibility for a twelve dollar plumbing bill, because his delivery boy had by accident left a large basket of guavas for a day on their back porch, and thereby created undue suspicions on their part concerning the plumbing equipment.

However, all the humor in connection with guavas is not confined to stories of more or less natural mistakes of persons who are newcomers to Florida. Now and then even the most seasoned of the home talent can become involved.

One night last summer the writer of these lines spent a somewhat restless evening. Even after retiring he arose once or twice and made the rounds of the house. Next morning at breakfast time he was still uneasy.

The beginnings of breakfast were somewhat strained. It was a delicate subject and not to be approached lightly. Excusing himself for a moment he took the six-year-old aside.

"Son, do you notice anything queer this morning?"

"Uh huh."

"Do you smell something?"

"Uh huh. Awful!"

It was enough. suspicion was confirmed. Difficult though the matter might be, it was something to be handled firmly. There was no use allowing a situation of the sort to drag along, even if the feminine members of the household did seem to be afflicted with non-functioning nasal organs, or badly impaired ones, to say the least.

Clearing his throat, in an off-hand and chatty manner he inquired casually of the head of the house:

"Is Eugene going to cut the grass this morning?"

"Yes."

"Is he going to wash the porches?"

"Yes."

"Wash windows?"

"No."

"Well, if he isn't going to be so busy, I believe it would be a good thing to have him crawl in under the house and take a good look around. You folks don't seem to notice it, and I dislike very much to bring up the subject, but—I am convinced something has died under the house, and—"

Roars and shrieks of laughter from mother and daughter. Paralysis of mirth.

Of course, it was nothing but guavas; the kitchen piled full for an orgy of jelly-making, scheduled to commence shortly.

Guavas are the limburger cheese of the vegetable kingdom.

They require a certain amount of education on the part of partakers in any situation where they are featured as the partakees in the raw or uncooked state, if they are to obtain unmitigated appreciation. Yet what can be more delicious when eaten right off the bush, or sliced with cream and sugar, when given the advantages of an educated home talent palate, and a home talent nose educated to indifference? The small red Catley, or the yellow Chinese, guavas are truly delicious when eaten right off the bush. They have the further advantage of being more retiring or self-restrained in the matter of odoriferousness, so to speak. The big pink-meat fellows lend themselves well to being peeled and served with cream and sugar, while the large clear white ones class particularly high as

ingredients for jelly-making.

Cooking takes from guava all those features which serve to distinguish them so distinctly—to the human nose. Yet it takes from them nothing which distinguishes them so gratefully to the palate.

Guava jelly is truly something for the gods to enjoy. By native Floridians it is generally conceded that if the gods had been privileged to enjoy guava jelly in their native habitat, they never would have been tempted down from Olympus under any circumstances. This opinion is shared not only by those who are Floridians by adoption, but by thousands of Northerners who have become acquainted with guava jelly.

This high regard is responsible for keeping the small plants producing guava jelly in some sections of the peninsula busy as all the proverbial busy-bodies during the guava season; and for keeping the home fires burning in the kitchens of innumerable Florida homesteads during the same period.

Guava paste is a delight to the palate second only to guava jelly in deliciousness. Either by itself or in certain approved combinations it is a delicacy to delight an epicure.

Guava bushes are ornamental, some varieties producing handsome growths which may well be used for ornamental plantings. Even the homeliest kinds are not unsightly. All in all, the guava is a valuable fruit, and no small asset to Florida.

The Peninsular State is noted for its good things to eat. Those who come here strangers to many of these things generally learn to like them in short order. Becoming accustomed to these edibles they miss them greatly when unable to obtain them.

Many who have come here from elsewhere flatter themselves they are becoming Floridians just in the proportion that their fondness for these Florida products increases and their hankering for the dishes peculiar to their former homeland diminishes. That may be something of a test, but at best it is inconclusive.

A man from New England may actually grow fond of grits and gravy, and find his yearnings for codfish and beans diminishing, and yet not have cause for undue pride in his adaptability. A chap from Indianny may

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Varieties of Pecans for Florida

By G. H. Blackmon, Pecan Culturist

Inquiries are constantly being made in regard to the varieties of pecans best adapted to different areas in Florida. In order to best answer these inquiries and to supply prospective planters with this information, those varieties which have given best results and which seem most promising are herewith published.

There has been much written and said about pecan varieties. Hardly a meeting of pecan growers is held without a discussion on this all-important subject. Put the question to any group of growers, as to which are the best varieties of pecans to plant, and there will be almost as many opinions as there are individuals. Some have had definitely successful results with a variety in one locality, while others have had an opposite experience with the same variety elsewhere. Widely varying results have been obtained under different, and even under apparently similar, conditions. Therefore, anything that the writer may say regarding varieties may not agree with the opinions of all growers, but in general it will be found that these recommendations will give good results, provided soils and other conditions are right and the orchard is given the proper care.

The varieties suggested are compiled from the recommendations of successful growers of pecans in different vicinities of the state, as well as the observations of the writer. This is not to be taken as final by any means, as new varieties may enter the field, or some of these may prove later to be unprofitable.

Pecan variety tests have not been made by the Florida Experiment Station, but an orchard was planted a year ago for the purpose of testing varieties exclusively. New varieties will be added to this planting as they are introduced.

To simplify matters, the varieties listed are divided into two groups—those producing nuts large enough that 60, or fewer, make a pound, and those so small that more than 60 are necessary to weigh a pound.

The Big Nut Group.

SCHLEY is the pecan that everyone wishes to grow, but, since it is susceptible to pecan scab, the grower should realize that the disease must be controlled or the trees will not mature a crop of nuts every year. The

nut is medium to large, thin-shelled, with a plump kernel of high quality and flavor that is easily removed from the broken shell. It is moderately productive and a regular bearer and is extensively grown in northwestern Florida.

STUART is a variety that has been widely disseminated and is popular almost everywhere grown. Up to the present it has proved to be free from scab. The nut is medium to large, moderately thick-shelled, enclosing a plump kernel that breaks quite easily in removing from the shell. The tree is moderately productive and a regular bearer. It is quite generally grown over northern and western Florida.

SUCCESS has been planted extensively over the pecan belt of Florida, but it seems to be variable in its success in that the nuts fill well in one area and not in another. The nut is large, moderately thick-shelled, and cracks well. When the nut is well filled the kernel is plump and of good quality and flavor. The tree is a good grower, and productive. It has not developed scab to any extent. It doubtless should be planted on the heavier and more fertile soils in northern and western Florida, as that seems to be the vicinity in which it does best.

FROTSCHER is another nut that does not fill out so well, but has fruited well in many areas in Florida. The nut is large, with a moderately thin shell and plump kernel of fair quality and flavor. The tree is only moderately productive, sometimes being reported as a shy bearer. It has not developed scab to any extent.

PABST has been planted in several counties of western Florida and has proved quite successful. The nut is large and rather thick-shelled and the kernel is plump with good flavor and quality. This variety has shown a tendency to scab. The tree is a good grower and productive.

The Small Nut Group.

The following varieties of the smaller nuts should give good results. Many growers claim greater returns from the smaller nuts than from the larger ones, claiming increased production.

CURTIS is one of the smaller nuts that has proved successful in many areas of the pecan belt. The nut is small to medium, thin-shelled, cracks well and has a plump kernel of high

quality and excellent flavor. It has not developed scab to any extent.

MOORE is a popular variety in many vicinities, being a heavy producer of nuts that crack out a plump kernel of good quality and flavor. The trees generally begin to bear at an early age. This variety has shown a tendency to scab.

KENNEDY is a variety which, like the Curtis, originated at Orange Heights. It has proved valuable in the eastern part of the pecan belt in Florida. The nut is of medium size. The shell is moderately thick, but cracks well, and the kernel is plump. Flavor and quality are good. It is slightly susceptible to scab.

RANDALL is a profitable variety in central and northern Florida. It is prolific, with a medium-sized nut, average thick shell, and plump kernel that comes out whole. The quality and flavor are good. This variety scabs but little.

MONEYMAKER is popular in many areas of the state. The nut is medium in size, shell rather thick, kernel moderately plump and of good flavor and quality. The tree is productive. This variety is free from scab at present.

One should not make the mistake of planting too many varieties of pecans, as a few well-chosen ones can be looked after and taken care of to best advantage, thus bringing about a greater production of nuts that can be marketed most economically. Three or four of the varieties named above when planted in any one orchard should give good results.

A pinch of sulphur, or at most half a teaspoonful, mixed with water and thoroughly rubbed into the scalp once a week while washing or shampooing the hair will cure and prevent dandruff. Rinse the hair well with clean water after rubbing in the sulphur; enough of the almost invisible particles will remain to effect a cure. In obstinate cases apply twice a week.—Doc Hiller.

How do you get rid of scrub boars, bulls and roosters in your community? Killing them has worked in a number of cases.

Barnyard manure left exposed to rain and sun for a few weeks loses from 40 to 70 per cent of its value.

New Citrus Aphid Controlled by Spot Dusting

By J. R. Watson and E. W. Berger.

Over many areas of Florida, particularly in the northern and central portions of the citrus belt, the new citrus aphid is increasing so rapidly that citrus growers are much concerned. The infestation at the present time is not general over the groves. On the contrary, most of the aphids are confined to a comparatively few trees, but these trees are often heavily infested. One may inspect a hundred trees without finding a single aphid and then find a bunch of trees where the infestation is very heavy.

Another important factor is that there are at present comparatively few winged forms among them. This makes the present a very propitious time to apply control measures. A grower can spot dust his grove at small cost, and probably postpone materially the time of general infestation in the grove. The experiences of last year indicate that the most critical time is the first flush of growth in the spring when blossoms are unfolding and setting fruit. If the aphid can be kept down to reasonable numbers during this period a great deal will be gained, as the depredations are much more important at this time than later on when the fruit is set and has attained size.

Growers are strongly advised to spot dust their groves at this time, to go through their groves two or three times a week and dust all aphids found. The leaves curl so quickly after the aphids attack them that, with a little training, one can learn to pick out the infested trees at a glance.

Most of the successful dusting done by Experiment Station workers has been with nicotine-sulphate dust containing at least 3 per cent of nicotine. The growers can make this themselves by mixing 7 pounds of nicotine sulphate with 100 pounds of hydrated lime or they can buy it already mixed. The cyanide dusts also appear to be valuable for this spot dusting.

If control measures are not taken now, it appears that a general infestation of the groves may be expected this coming spring, with a great deal of damage to both foliage and fruit resulting. The aphids are entirely capable of causing most of the blossoms to drop without setting fruit.

soms to drop without setting fruit.

Last year the aphids caused much of the fruit that clung to be full of little bumps. The oranges outgrew this to a large extent but not entirely. These bumped oranges still show considerable roughness. The badly curled leaves resulting from the attacks of these aphids are incapable of satisfactorily performing the functions of leaves, and it has been observed that if the injury is sufficiently severe the twig is permanently stunted. In that case growth does not continue from the terminal bud, but from a lateral bud branching out near the base of the injured part. Another serious feature of infestation by this aphid is that purple scale is developing in the leaves curled last summer. It is almost impossible to reach with an oil emulsion spray the purple scale inside these curled leaves.

Many of the parasites are much in evidence. This is particularly true of the syrphus fly larvae. It is possible that they will be able to control the infestation, but growers are not advised to depend on any such possibility. Present indications point to a severe infestation of aphids this spring. The hymenopterous parasites are apparently doing better than last year. Recent inspections revealed some emergence holes, showing that they were able to complete their development in the aphids. Lady beetles, however, are not much in evidence at present.

In many portions of the citrus belt the aphids were able to tide over a period during which there was no new growth on the citrus by taking to spirea. There is not enough spirea in Florida to account for the large number of aphids now coming out on the citrus, but undoubtedly the presence of spirea in or about an orange grove constitutes a danger to the citrus, and the entomologist of the Florida Experiment Station strongly recommends its destruction in citrus communities. One of the most common species of spirea is the "Bridal Wreath." In some places it has been impossible to find any aphids on citrus during the last few weeks, because of the lack of new growth, but a careful search of spirea has always revealed them.

ASSISTANT HORTICULTURIST (DATE CULTURE)

An examination for assistant horticulturist (date culture) will be held throughout the country on March 11. It is to fill a vacancy under the Federal Horticultural Board of the Department of Agriculture, for duty at Indio, Calif., and vacancies in positions requiring similar qualifications.

The entrance salary for this position is \$2,400 a year. Advancement in pay may be made without change in assignment up to \$3,000 a year.

The duties of the position are to supervise field work in detecting and eradicating the date palm scale, under the direction of the Federal Horticultural Board, in Texas, Arizona, and California; to have charge of inspection forces, planning and directing field work in connection with examination of infested palms, prescribing treatments, and inspecting work of field agents working on this problem in the Southwestern United States; also, to make studies of the behavior of different varieties of dates under different soil and climatic conditions with special reference to the suitability of these dates for cultivation commercially.

Competitors will be rated on practical questions on date growing and date scale eradication, a thesis to be handed to the examiner on the day of the examination, and education and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil-service examiners at the post office or custom house in any city.

There is nothing in which God asks so little of us and gives so much as in the planting of a tree.—Selected.

CITRICULTURAL SERVICE

Grow better quality and more fruit for less money. Have healthy, disease and insect resisting trees; improved soil conditions by giving the Heimburger Citricultural Service for a nominal fee, a single visit or contract by the year, based on thirty five years of successful Florida field experience, backed by the best of technical training. Lindley Heimburger, B. S. Agri., M. S., Agricultural Engineer and Chemist, Box 226, Tampa, Fla.

The Jam Makers Of Sidon

By Mabel S. C. Smith

High up on one of the Lebanon hills looking out over the blue Mediterranean is a group of Syrian and Armenian orphan girls busy at the housewife's favorite task of making jam and marmalade. They are experts at the job. Sidon Hilltop orphanage maintained by Near East Relief, has made a name for itself as a factory of the most delicious conserves and

Finnish for Mrs. Jessup is constantly trying new recipes sent her from every part of the world by visitors to the orphanage.

Apricot jam is another favorite. Native damsons and small green plums are snappy both preserved and as jam, cherries and quinces alone and in combination with other fruits, peaches both sweet, pickled and

the delight of local buyers—from America. On each jar is pasted the orphanage label.

SIDON HILLTOP Near East Relief Apricot Jam

The skill of these little girls in making so well such a variety of preserves means much more than the earning of an addition to the orphanage funds. The children are eager to do that by way of payment for the maintenance they are receiving. They know very well, however, that when they are sixteen they must earn their own living. Every one of them is learning to be a capable housewife competent to take any sort of household position. When to their general knowledge is added the specialized knowledge of what may be done with the local fruit these youngsters may be sure that they have an assured means of self-support.



Girls Preparing Fruit for Canning

they feel in honor bound to maintain its prestige. Their fingers fly so fast at peeling and cutting that it has not been thought necessary to install machinery to do that part of the work although orange marmalade is turned out by the ton and other products by the hundredweight.

Fruits in great variety crowd up to the very door. It is a fruit grower's Paradise! There are oranges, lemons and limes, cherries, apricots and plums, bananas, figs and dates, mulberries with their thimble-shaped berries, cacti clasping each a succulent pear and loquots, similar to persimmons.

Mrs. Stewart D. Jessup of Nebraska, who is in charge of the preserving kitchen, knows how to do something with every one of them. Orange marmalade is the most in demand for the Sidon oranges are luscious and steamships and hotels lodge heavy annual orders for pounds and pounds. In 1923 the orders called for three tons of fruit and in 1924 the demand was for five tons. Estimated by jars the 1924 output ran to 7,908 pint jars and 2,226 quart jars of fruits and vegetables and 10,000 pint jars of marmalade for sale in the local markets. The recipe used is

spiced, lemon marmalade to which a savory tang is given by the skin, seasoned watermelon rind for serving with meat courses, piccalilli, pickled walnuts and spiced tomatoes make up the list turned out by the skillful hands of these young girls. Their simple equipment consists of three large kettles about 30 inches in diameter and 20 inches deep each set over a charcoal fire. Sugar is imported from Bulgaria and glass jars—

PEARS

Pear Blight—Cut off and burn all affected limbs. Careful pruning should be restored to during the winter to remove all effected limbs and affected areas. Disinfect the pruning shears after removing each branch or affected part. About a four per cent solution of formaldehyde can be used for this purpose.

Pear Blight is a bacterial disease and easily transmitted. Write to the State Board of Entomology, Atlanta, Ga., for bulletin on Pear Blight and Its Control; also to the Bureau of Plant Industry, Department of Agriculture, Washington, D. C.



BANANA PLANTATIONS

Offer the largest and quickest returns of any investment in the state. The growing of bananas on a commercial scale is established and profits of

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and upwards are not unusual. A small down payment and liberal time payments will buy a five acre plantation, fully planted.

BEYMER BLDG.
Write for interesting free booklet on Banana Culture.

Taylor-Alexander Company
"THE ORIGINAL PLANTATION DEVELOPERS"
Winter Haven, Florida

THE BANANA PLANT

(Continued from page 14)

ence of the disease in the soil has been proved in Jamaica to extend to a period of at least 10 years. Bananas cannot therefore be safely planted on land where the disease has once appeared.

The exact conditions predisposing plants to this disease are not known, but it is probable that in very wet climates where there is no definite dry season, bad drainage and resulting sourness of the soil may favor the disease. In preparing land for bananas it is therefore advisable to trench before planting, and to provide ample sub-soil drainage so as to eliminate risk of stagnant water being retained in the soil. The Chinese or Cavendish banana has not so far been affected by this disease, and several other local varieties in Jamaica are known to be immune. The question of producing an immune variety for commercial purposes is now being seriously considered.

GUAVAS.

(Continued from page 15)

have learned to smack his lips over cow peas and maybe cassava pudding, and discover that his pinings for cider and pumpkin pie have materially declined, and still not feel too cocky concerning his progress as a Floridian.

But, and now we are down to brass tacks, whenever the time comes that an aforesaid Yankee can walk right up to a guava bush, pluck a luscious guava and plump it right into his mouth and begin to masticate with an appreciative grunt, without hesitation or any delays in transit in the vicinity of his nostrils, without any apprehensive shudder or rapid batting of the eyelids, then, and only then may he lift up his eyes toward Heaven and in a voice of praise recite:

"I am now a full fledged Florida Cracker. The Lord be praised for His blessings!"

A few drops of commercial ammonia on a dry cloth will do much to remove "water spots" from polished floors or furniture. If the surface is waxed, the spots should be rubbed with a mixture of equal parts of turpentine and linseed oil.

Some days mothers may feel that they have not accomplished much, but they realize that just being "mother" is worth a whole lot.

THE CITRUS INDUSTRY

Buy a high-class, purebred rooster, if you want to raise chickens right.

Eat more fruits and vegetables: They mean vigor and health.

Resolve to grow legumes this year.

Don't depend on the moon to say when to plant crops; the moon has other things to do.

Nineteen

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Tampa, Fla.

Some Citrus Fundamentals

R. E. Lenfest, Horticulturist
ORANGE COUNTY CITRUS SUB-EXCHANGE

PLANTING. Have holes large enough. Prune tops rather severely. Clip off bruised and withered roots. Keep crown roots slightly above ground level with lateral roots straight and nearly horizontal. Wash soil in around roots, pack firmly, water well, and mulch. Repeat watering before soil gets dry down to roots. Inspect every week or ten days.

CULTIVATION should always be shallow where tree roots are growing. Fit discs with spools to prevent cutting over 2½ inches in depth. Acme harrow generally best for light cultivation. XL blades best for troublesome grass, etc. For young trees during growing season cultivate tree rows. After summer rains start discontinue cultivation for about six weeks to allow cover crop to start and then begin working tree rows again. Continued cultivation often destroys humus in tree rows. For bearing trees working in the fertilizer should be sufficient for getting quality fruit provided water can be supplied during dry periods. If necessary maintain dust mulch during dry weather.

PLOWING should not usually be over 2½ inches deep where tree roots are growing. Be sure plow is sharp and that the land slide and heel and are not worn out. A disc harrow with spools may often be used to better advantage than a plow.

Fertilizer should always be scattered evenly and as far out as roots extend, and slightly beyond if they do not meet in the middles. Examination will show that tree roots run out surprisingly far, even on young trees. Broadcast in groves where bearing trees are of any size. Never apply in narrow bands close to trees. Give trees enough fertilizer, but not too much.

SPRAYING. At least 200 lbs. pressure necessary for best results. Wet BOTH sides of leaves and ALL twigs and branches. Insect pests are found on nearly all parts of trees. It is important to keep in mind that rust mites are often numerous on tender leaves and twigs when not many are found on the fruit, and that they may attack the fruit during the winter or early spring. Use oil emulsion for scales and white flies and for removing sooty mold; lime-sulphur 1-70 for mites and spiders; lime-sulphur 1-40 or Bordeaux-oil for scab, use in the Spring; Bordeaux-oil for melanose, use in the Spring after bloom has dropped and finish by May 5th. In applying Bordeaux-oil cover foliage and young fruit, if present, (some dead wood will also be covered) and plan for THOROUGH oil spraying the last of June or early July. Sulphur dust kills rust mites and if weather is hot kills spider mites also. THOROUGHNESS and using RIGHT material at the RIGHT time give results that pay.

PRUNING of young trees should usually be restricted to removing root-stock sprouts and dead wood. Prune older trees moderately inside. Remove all dead or weak wood. Make all cuts close to parent limb or trunk, leaving no stubs or sharp angles. Paint larger cuts with tar or paint. Tar has the advantage of not cracking.

BLUESTONE, when applied to the soil, should be scattered out evenly (as recommended for fertilizer) and left on top of ground.

BANKING YOUNG TREES should be completed by the first of December. Be sure there is no trash near the tree and that wood lice are not already present around crown roots. Then build up the bank, using soil dry as possible and free from trash. Inspect banks after each rain or high wind as they are often washed down, exposing the trunks, and the trees moving in the wind may expose trunks below top of banks.

FIRE DANGER. Remember that ripe, dry cover crops, which have not been mowed or worked down, and over grown fence rows are apt to catch fire and damage or kill trees.

In writing to advertisers, please mention The Citrus Industry.

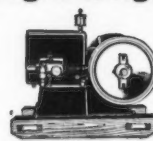
Sprouted oats furnish one of the best sources of green and succulent feed for the poultry flock during winter.

In writing to advertisers, please mention The Citrus Industry.

Don't bore the cow's horn for hollow-horn nor split her tail for hollow-tail; put feed in her stomach.

The bruised fruit or vegetable hasn't a chance.

CUSHMAN Light-Weight All-Purpose Engines



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Here's a wonderful little 1½ H.P. engine for pumping and all the little jobs on the farm—a real no-trouble engine, with less moving parts. No rocker arms, levers or rollers. Simpler in design and requires less attention. Equipped with Throttling Governor. You will find it a much better engine, at a very reasonable price.

Light weight engines specially adapted for fruit sprayers—sizes 3, 4 and 8 H. P. 8 to 20 H. P. 2-cylinder engines for irrigation. The reliability, durability and efficiency of the Cushman engine are well known to many Florida users. Warehouse stock in Jacksonville, affording quick shipment. Write CUSHMAN MOTOR WORKS, Box 1248, Norfolk, Va., or the home office, Lincoln, Nebraska.

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Citrus Fruits Round the World

The present crop of sour oranges, which are exported principally to England and Scotland for the manufacture of marmalade, is expected to be somewhat smaller than usual, the most reliable predictions being that about 150,000 half chests will be shipped (a half chest weighs about 143 pounds). The quality is not expected to measure up to last year's oranges. While the fruit will be as free from defects as usual, the comparatively smaller crop coinciding with a constant demand will oblige the shippers to use less care in selection to fill orders. This does not mean that fruit will be of inferior quality but that its

external appearance will fall below that of former good years. No sweet oranges are grown near Seville for export and there is no local demand for the sour variety. Any surplus over what the British market can absorb is fed to cattle, the peels being removed and dried for export to Holland for the manufacture of curacao and other liqueurs. Shipments of sour oranges during the last three crops were: 1921 crop, 183,231 half chests; 1922 crop, 138,694 half chests; 1923 crop, 196,976 half chests, according to Consul William C. Burdett, Seville, in a report received in the Department of Commerce.

Exportation of Valencia Oranges

During the past five years the production and exportation of oranges in Valencia have been tripled which will be seen from the following export figures: in 1919-20, 3,601,064 boxes; 1920-21, 6,271,439 boxes; 1921-22, 7,983,263 boxes; 1922-23, 7,967,829 boxes and in 1923-24, 9,417,278 boxes. Both the quality and quantity of the present crop are excellent, reports Assistant Trade Commissioner James G. Burke, at Madrid, to the Department of Commerce. Prices have been rising steadily, and both growers and exporters are pleased with their profits.

Specialists Are Warning Against New Citrus Aphid

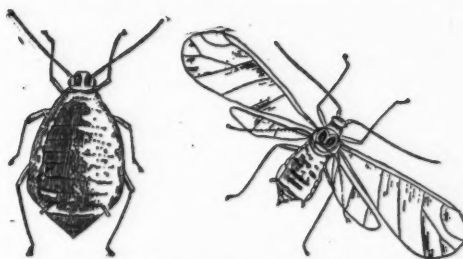
Gainesville, Feb. 19.—Entomologists of the Florida Experiment station here are continuing their warning to citrus growers of the state to adopt control measures for the new citrus aphid at once if an infestation is found in a grove.

They point out that at present there are few winged forms among them, and this will tend to prevent the rapid spread and at the same time will help in their control.

Before an infestation becomes general in a grove, it is possible to control the aphid by the spot dusting method, it is stated. This method is to pick out the infested trees and dust thoroughly two or three times a week with a nicotine-sulphate dust containing at least 3 per cent nicotine. Cyanide dusts also appear to be valuable in spot dusting.

Control measures should be taken immediately to prevent the spread of the aphids from becoming general. In case the infestation does become general much damage may be done to the groves.—News Item.

Two Bad Actors



Male and Female Aphid

These two fellows are reported in active operation in many sections. Aphid suck the juices from the foliage, stunt the growth causing the leaves to curl, turn yellow and finally the plant or tree dies. They multiply very rapidly. Close watch should be kept and the minute Aphid appears quick action should be taken to prevent their getting too much of a start on you.

Aphid is controlled with strong nicotine dust. Our double-strength Nicotine Dust is especially effective. This dust is very finely pulverized and reaches all parts of the foliage being better for this reason than a nicotine spray.

We make a complete line of dusts—Nicotine, Copper Lime, Copper Arsenate, etc. Send for free dusting guide and price list.

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THE CITRUS INDUSTRY
CHANGES IN THE STAFF
AGRICULTURAL EXT. DIV.

Changes in the staff of the Agricultural Extension Division, University of Florida, include the resignation of S. W. Hiatt as district agent, and the appointment of J. Lee Smith, Escambia county agent, to be district agent.

Mr. Hiatt resigned to accept the position as county agent of Palm Beach County. He leaves the extension state staff after about four years as assistant club agent and district agent of the northeastern and eastern counties of Florida. In addition to the many duties of a district agent, he has been largely instrumental in the development of agricultural fairs in the State. It has ever been his aim to make Florida fairs better. That his efforts have been successful is evidenced by the fact that the county commissioners of Palm Beach county voted to offer him a salary practically double that given him by the state university as district agent, because they were looking for a "fair specialist."

Mr. Smith has been county agent in Escambia county for about five years. During that time he has distinguished himself for reaching the "dirt" farmer and in teaching farm boys how to be better farmers than their fathers. The authorities report that his county constituents were disappointed in losing him, altho being happy with him upon his promotion. Those familiar with extension work in Florida have no hesitancy in saying that "J. Lee Smith is one of the best county agents Florida has ever had."

These changes become effective on February 15, 1925.

DATE OF QUARANTINE
HEARING ADVANCED

The public hearing to consider the bringing of Porto Rican fruits and vegetables under permit and any restrictions necessary to prevent the entry into the United States of certain pests known to occur in Potro Rico, scheduled for March 20, 10 a. m., Washington, D. C., has been advanced to March 18, at the same hour and place, the Federal Horticultural Board, United States Department of Agriculture, announced today.

The date of this hearing is advanced at the request of Porto Rican fruit growers to enable them to return to Porto Rico on the same boat

Organize A
Band

Every live, wide-awake town in Florida should have a first-class band, providing entertainment for tourists and home folks.

If your town has no band, let our specialists assist you in organizing and equipping one. We are distributors of the world famous CONN instruments. Call on us or write for further information.

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M. L. Price
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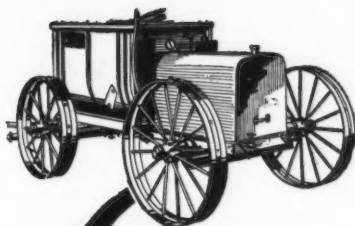
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When You DO Need It

—That's what you want and what you get with Hardie Sprayers. Read these letters as typical proof:

- 1 "We have one of the first Hardies in this section of the country. For eleven years we have been trying to wear it out but without success."
- 2 "But above all, I want to compliment you for the service you give on the Hardie. It's certainly a pleasure to know that you take an interest in the machine and me after you have my money."

HARDIE DEPENDABLE SPRAYERS

In every fruit district we are represented by selected dealers and our travelers are constantly in touch with Hardie owners as well as prospective buyers.

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Service Map
of Florida

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Find out
how.



The famous
Oushman En-
gine weighs
1/2 to 1/3 less
than others of
equal power

THE CITRUS INDUSTRY

which will bring them to the mainland.

The hearing is called in compliance with the Plant Quarantine Act of August 20, 1912 (37 Stat., 315), as amended by the act of Congress approved March 4, 1917 (39 Stat., 1134 1165).

As explained in connection with the original notice, the purpose of this hearing is to make it possible to bring under the conditions of permit and inspection fruit and vegetable imports from Porto Rico so that the department may satisfy itself that such imports are free from risk of being the means of introducing new pests injurious to our agriculture or horticulture, and to take any precautions which may be necessary to exclude such pests. It is the expectation, however, that it will not be found necessary to place any material restrictions on the leading fruit exports from Porto Rico, such as citrus fruits, bananas, pineapples, and avocados.

A GUIDE TO BETTER PACKING

The millions of dollars lost annually through careless or unjudicious packing which invites pilferage and destroys goods through breakage or other damage, it a tax on industry which all those sharing in the distributive process should join forces to eliminate.

Realizing the necessity of cutting down this marginal waste, the House Committee on Merchant Marine in 1921 requested the Transportation Division of the Department of Commerce to make a nationwide survey. After three years of intensive field investigation, study, and technical research, conducted in cooperation with shippers, container manufacturers, and the Forest Products Laboratory, the Department has just published the results of its findings in "Packing for Foreign Markets."

SHADE TREES

Leaf-Eating Insects—Spray with two pounds of arsenate of lead, three pounds of lime to each fifty gallons of water.

San Jose Scale—Same treatment as recommended for Apples.

West India Scale—When trees are dormant use lime-sulphur solution as a spray, mix one gallon to eight of water. During the growing season use commercial insecticide, mixed one and one-half gallons to 11100 gallons of water.

Twenty-three

Money DOES Grow on Trees --BUCKEYE TREES

Your investment in citrus trees is the key to your success as a citrus grower.

BUCKEYE TREES are the recognized standard of the industry.

For 44 years this standard has been maintained.

The marvelous development of Florida fruit is the result of the tireless efforts devoted to improvements, such as this organization has effected through its long experience and expert knowledge.

The quantity production of quality trees by BUCKEYE NURSERIES makes it possible to supply your requirements at a price lower than you pay for unknown brands.

Money DOES grow on trees
—BUCKEYE TREES.

BUCKEYE NURSERIES, Inc.

818 Citrus Exchange Bldg.

Tampa, Florida

Nurseries: Winter Haven

Orlando Office:

705 Orlando Bank & Trust
Bldg.

Preparing for State Horticultural Meeting

Active preparations are being made for the annual meeting of the Florida Horticultural Society which is to be held this year at Eustis, probably early in April.

"The Executive Committee of the Horticultural Society met in Tampa on Wednesday, January 21st. There were present: L. B. Skinner, President; Bayard F. Floyd, Secretary; B. L. Hamner, of Tampa; W. W. Yothers Assistant Secy. of Orlando.

In consultation were: J. W. Barney, of Palma Sola, Fla.; Ed. L. Ayers, Bradenton, Fla.; E. F. DeBusk, Gainesville, Fla.; A. R. Sandlin, Leesburg, Fla.

Consideration was given to the program for the annual meeting of the Florida State Horticultural Society which will be held this year in Eustis, Fla., and probably will be held from the 7th to the 10th of April, in order to avail ourselves of the Fountain Hotel which will be open at that date.

Possible questions for discussion



L. B. Skinner, President

will be Florida Beautification, with an

address by some experts in this connection. Also, the Borax treatment to prevent decay in citrus fruits with a report from some who have seen this working in California. There will be some discussion relating to the Clementine Tangerine, an early tangerine from Algiers. Also, discussion with relation to the Cleopatra Root stock, and Mr. J. W. Barney will give some field demonstrations of his methods of transforming bearing trees to any desired variety and this will be a demonstration of the work of actually budding the bearing trees. Also, we hope to have some discussions relative to the small fruits, such as the new dewberry, marvel blackberry, etc. It is possible some discussion may be had of the plan of dusting citrus trees from an aeroplane, and possibly an actual demonstration of this.

How About King Oranges?

By J. G. Grossenbacher

It seems to me that this is a good time to set out some Kings and also to convert some of the less desirable varieties of grapefruit to this more profitable orange.

In looking over the citrus output for the past shipping season grapefruit totaled 19,482 cars, tangerines 544 cars, and oranges 33,233 cars. No separate record is shown for the shipment of Kings. In comparing these bulk figures one cannot avoid the conclusion that Kings would have ample room in the markets and at profitable prices.

Doubtless grapefruit prices will improve in course of time but owing to the fact that there is still a large acreage that has barely come into bearing the total yield will soon be brought up to a much greater figure than that shown for the past shipping season. The extra sales effort now under way on grapefruit will hardly take care of the natural increase in bulk so as to net very high prices for several years. If the less desirable varieties were top-worked to Kings at this time a profitable

shift would be made. Those doing the converting would doubtless profit by the change. With the present low price of grapefruit the cost of having a non-bearing tree top-worked would be comparatively slight. The third season the King buds would begin to make good, and soon thereafter the returns from the Kings would wipe out all possible loss and provide marked annual gains.

I am aware of the fact that King orange trees are much more difficult to manage than grapefruit trees and that the yields are much lighter per tree but with some extra care and fertilization they give fair crops of fruit.

I find that King oranges ripen about a month earlier on sour stock than they do on rough lemon. The quality of the fruit is better on sour stock. But since the King on sour stock ripens about the first of January it seems that this variety had better be budded on rough lemon and thus get into the market after the tangerines are about gone.

I noticed the same difference of

time of ripening of Marsh Seedless grapefruit on sour and rough lemon stock. My Marsh grapefruit on sour stock is usually ripe in early January while on rough lemon the fruit is usually not ripe till about the middle of February.

Since the King needs an exceptionally large amount of fertilizer it may be that growing them on rough lemon stock would also effect a saving.

It seems to me that the new method of top-working trees discussed by J. W. Barney in the Proceedings of the Florida Horticultural Society for 1923 would prove of great value. This method is more fully presented by T. Ralph Robinson in the Journal of Heredity, pages 398 to 404, of 1923. The last article has some very fine photographic illustrations that help very materially in fully understanding the method.

AVOCADO TREES

The wonderful Fuerte and other choice varieties. Planting time is here. Catalog free.
Florida Tropical Nurseries
P. O. Box 81
Bartow, Florida

Citrus Growers Use**NICHOLS
TRIANGLE BRAND
BLUESTONE**

(Copper Sulphate)

**To stop the splitting of fruit
caused by Dieback and
Ammoniation**

The use of Triangle Brand Bluestone will insure you against loss in your grove operations. It is the quality standard and generally used by Citrus growers and Truckers for Dieback control and the preparation of home made Bordeaux Mixtures for spraying purposes.

Insist on NICHOLS TRIANGLE BRAND and assure yourself of the best.

NICHOLS COPPER CO.

25 Broad St.



New York



**"Quality Fertilizer
for Quality Fruit"**

**Florida Fruits
and Flowers**

A Monthly Magazine devoted to diversification in fruit growing and to home and civic ornamentation.

The kind of a magazine you will enjoy in your home. It tells of the different kinds of fruits which can be successfully grown in Florida and it aids with helpful suggestions about ornamentals and flowers for your home or community.

FLORIDA FRUITS AND FLOWERS costs but \$1.00 for twelve months. Pin a check or a dollar to this notice and mail to

Florida Fruits and Flowers**Bartow, Fla.**

North Wants Florida Oranges for Health.

There is a demand and a need for many of Florida's oranges that drop to the ground and rot. From the far-away North comes a hint that oranges be produced and so distributed that their health-giving properties may be enjoyed by those so greatly in need of them in regions far from the land where grown.

The following is quoted from the Pioneer Press Dispatch of St. Paul, Minn.: "Mothers who have joined the nutrition workers and teachers in the movement to provide milk for school children during school hours in northern states will be interested in knowing that down in Polk county, Florida, where Miss Lois Godbey is the home demonstration agent, a local nursery has arranged to send oranges to the schools each week, 'which,' reports Miss Godbey, 'will mean great aid in our nutrition program'. It may be the green-eyed monster blinking at us, but we wish the nurserymen of the orange-raising districts, the carriers of fruit between those districts and us, and the several other handlers along

the way, would have a fellow feeling for the youngsters up north and, far from making us gifts of oranges, just adjust production and distribution so that school children, up north, might afford to buy them occasionally. Wouldn't it be a public-spirited action?"

When oranges are seen covering the ground beneath the trees over entire groves—one after another over county after county—one is forced to believe that there is much waste. One great editorial writer a few months ago suggested that Florida market its citrus crops in such a manner that the oranges average a cent each, thus making more money for the growers and making it possible for even the needy "youngsters up north" to benefit of the health and vitality wasted in so many oranges that rot.

Food for thought. Authorities of the Florida College of Agriculture have said that marketing is now just as important as production. They believe due effort along this line will help the situation.

Crotalaria A New Cover Crop for Citrus Groves

A new cover crop that has many advantages and few known disadvantages has been found for Florida, and has been tested out sufficiently to prove its adaptability to local conditions. It seems particularly suited as a cover crop for citrus groves in the southern counties, altho it is believed to be equally good for all kinds of groves in all parts of the State. It is particularly adapted to groves on light sandy soils.

This plant is known as "crotalaria." About five years ago it was sent to the Florida Experiment Station by the Bureau of Plant Industry, United States Department of Agriculture, and within the five years has become pretty firmly established on the station farm. It is well established in Brevard County.

Crotalaria is a legume, which makes is doubly desirable because of its tendency to improve the soil. It

has been found to do better than velvet beans, cowpeas, or beggarweed on light sandy lands according to W. E. Stokes, grass and forage crops specialist for the Florida Experiment Station.

This legume is not relished by livestock, as one would naturally assume. However, its friends claim that this is an advantage, since the farmer (Continued on page 34)

CITRUS TREES

Our trees have not been infested with Aphis.

Every tree has a fine quality root stock and a careful bud selection.

These features are the fundamentals of a good grove and successful citrus culture.

—Write or call—

Wartmann Nursery Company

OCALA,

FLORIDA

"COULD BETTER FERTILIZER BE MADE WE WOULD MAKE IT"

Get January price list Mixed Fertilizers. "SIMON PURE and GEM BRANDS" now ready. QUALITY first, Fair prices. Also insecticides, sprayers, dusters and dusts. E. O. PAINTER FERTILIZER COMPANY, Jacksonville, Florida.

"AIR-DRAFT"

A thorough knowledge of this new discovery will lead you to do better and faster spraying, and increase your fruit profits. Write at once for New Descriptive circular which fully describes the newest discoveries in Liquid Spraying.

"Friend" Mfg. Co.,
Gasport, N. Y.

Give Fruit Acreage. Name this paper.



THE ANGE BILT

Orlando's Most Distinctive Hotel

Fireproof—Every room with private bath—Fireproof

Excellent Dining Room Service 10th Floor

"The Height of Hospitality"

Orlando, Florida.

Arthur F. Landstreet, Manager



Field Service

Now is the time to figure on your fertilizer needs. Our soil and fertilizer experts visit farms and groves daily, to study the various individual cases.

Let one of them come out to your place and study your special case and give you expert advice as to formula and quantity of fertilizer, when and with what to spray, etc. Just write or call. This service costs you nothing and puts you under no obligation to buy.

Quality Fertilizers

Quality Service

THE GULF FERTILIZER CO.

603 CITIZENS BANK BLDG.

TAMPA, FLA.

Plant your trees budded on

SOUR ORANGE STOCK

If you want "BETTER TREES" and "BETTER FRUIT." It is the quality that determines the price of your fruit. Everyone agrees that the SOUR ORANGE produces the BEST FRUIT. Citrus fruit of fancy grade returned a profit to growers during last season's low prices.

The tree that you plant must be well selected, strong, thrifty, and of proper root system and bud, if you would have them return you a profit on your investment.

We have a large stock of fine trees in all the standard time tested varieties, but we offer no novelties or freaks for you to try out at fancy prices.

Our trees have been carefully grown by citrus experts. Our root system is unexcelled. All buds taken from bearing trees of proven worth from some of the best groves in LAKE COUNTY.

We cordially invite you to call and inspect our splendid stock.

Write for our Catalog and reduced price list.

Special prices on lots of a thousand or more.

Lake Nursery Company

Incorporated \$300,000.

"THE SOUR ORANGE NURSERY"

Leesburg, Florida

W. S. McClelland, Pres.

W. E. Evans, Sec.

Chas. Isted, Treas.

Specialized Selling Wins

As Specialized Selling

Oranges and grapefruit are no more alike in the markets than the various sections of Florida, requires specialized effort if it is to be sold. From the very beginning of its operations here the American Fruit Company organized its selling effort accordingly. The results to date have more than increased expense involved, when compared with any policy of simple fruit.

Each of many sections of Florida's citrus producing areas offers fruit which in some manner differs from the fruit produced in other sections. In some instances there is a considerable variation between the fruit from different localities of the same section of the state.

These differences, these variations, must be given recognition. Some fruit will do better in the big auction markets than elsewhere. It should go to those markets rather than other places; and then be given the advantage of a specialized sales service in these same auctions.

Other good fruit is not calculated to bring its fullest value at auction. It should be sold on an f. o. b. basis in those markets where experience has taught there is the best reception awaiting just this particular kind of fruit. Just any old destination will not obtain best results.

Only experts, fully familiar with Florida and equally familiar with the requirements and preferences of each of the hundreds of markets of the country, are able thus to classify oranges and grapefruit accurately. This organization is fortunate in possessing such men, whose knowledge is really invaluable.

Then they must be given a free hand, just the sort of free hand that they are given here, to effect this distribution wisely and well. They must also have a wide area of distribution to work in, the widest possible. Our 168 sales offices all over the United States and Canada provide that outlet.



American Fruit

Orlando :

ns for AFG Growers Selling Must Always Win

ets than they are on the trees. Different fruit, from each of the
it is to be sold to the best advantage of the growers concern-
merican Fruit Growers Inc. has recognized this fact and has or-
have more than justified the additional energy and the in-
y of simply selling oranges as oranges and grapefruit as grape-



Representation at the delivering end must be equal to the job there also. The American Fruit Growers Inc. with its non-conflicting line of fresh fruits and vegetables for the table during every day of the year is in a position to command selling talent which is the very best in each field of selling.

There must be intelligent and constructive merchandising and advertising to increase distribution and consumption; and in this the AFG admittedly sets the pace among the handlers of perishable food-stuffs. Then all these activities must be coordinated and timed accurately to be effective.

There needs to be pep and ginger and the sort of enthusiastic salesmanship which breaks down the barriers of sales resistance. That can only come of confidence which an entire organization possesses in the workings of its own and of each and every other part of a well balanced commercial machine.

After all, this selling of fresh fruits is a commercial undertaking throughout. Dollars and cents are ever present in the calculations of the storekeepers who pass them along and even the most sentimental housewife is looking first for her money's worth when it comes to buying for her table needs.

Specialized selling along commercial lines by a commercial organization, which realizes it must always perform just a little better than any other in order to obtain recognition is what has put AFG Sales Service at the forefront in Florida. It has won the confidence of growers by winning real money for them.

Growers Inc.
Florida

Ocklawaha Nurseries Take Orange County Fair Blue Ribbon

Exhibiting six citrus trees in various stages of growth, and a display of pedigreed Pineapple oranges, the Ocklawaha Nurseries, Inc., of Lake Jem, captured a blue ribbon for each exhibit made at the recent Orange County Mid-Winter Fair held yearly in Orlando.

The trees were all in bloom and the perfect color of the bloom gave silent testimony to the excellence of the fruit that would follow. The trees showed excellent condition and exceptional growth and were all budded by the Ocklawaha Nurseries pedigreed system.

The Pineapple oranges shown took highest award for the most perfect fruit exhibited. They were produced on pedigreed trees and it was stated by several officials of the Fair that they were the finest Pineapple oranges ever displayed at the Fair, the

color, texture, seeds and other points showing perfect reproduction and quality.

The Ocklawaha Nurseries were organized in 1896 and have grown to be recognized as one of the largest exclusive citrus nurseries in central Florida. It was stated by an official of the company that they were the first nurseries in Florida to introduce the pedigreed method of budding citrus trees. A perfect performance record of twelve years is required of a tree before it is used to cut budwood from it. By this method bud sports and type variations are eliminated so that they can be sure of proper reproduction of type and variety, it was explained. A booklet upon their method of pedigreed propagation of citrus trees will be sent free to any grower by request, stated the official.

THE GROWER AND HIS REWARD

(Continued from page 11)

ing, general distribution, increased demand are necessary to the success of the citrus business and the financial welfare of Florida. We must advertise thoroughly to increase demand, standardize and grade, so as to secure and insure quality. We must produce economically and market efficiently so as to get the fruit to the consumer at a price that will encourage and increase consumption. We must have designated brands and uniformity of grades so as to satisfy the buyer, the consumer, and secure continued orders. We must stabilize crop movement and eliminate competitive selling. The business must be amply financed. The industry is entitled to skillful, efficient salesmanship. We must meet the demand with a regular supply, always giving the quality desired, furnishing the quantity wanted at the time it is wanted. We must have uniformity of grade and supply and should have unity of purpose in standardizing, advertising and merchandising the output. These various functions of marketing can best be done by one organization.

Florida fruit growers will have to learn that they cannot sell culls and a poor quality of products for top prices. That marketing is a business, and cannot be carried on successfully on hot air, gas and sentiment; that shipping a poor quality of products continuously means a lower price to producer and higher price to consum-

er and a decrease in the demand. That efficient marketing demands the various classes of consumers be supplied and satisfied. That products packed grove or field run without grading, standardization or inspection will sell at the price of the lowest grade represented in the commodity. That haphazard shipping without any regulation to demand will destroy the profits of the season and eventually the entire industry. That it has been through cooperation that all civilization has advanced and that those who have opposed it have opposed human progress.

The farmer's business has gone on the rocks, his balance has been on the wrong side of the ledger, and he has faced and is facing bankruptcy, because he has since the birth of civilization paid what was asked when he bought, and accepted what was offered when he sold.

As long as we sweep down the tides of time, we must receive our food and raiment from the soil of the farm and the toil of the farmer, and everybody on earth should assist, support, foster and befriend the industry that supplies our wants from the cradle to the grave.

Sane, practical, economical principles of marketing, which are fundamentally sound, is one essential factor in a successful agriculture, and can be put into practice, for nothing seems to be impossible for American genius. As a people we enjoy the financial dominance of the world. We

have commercial supremacy of the world, we have the tallest buildings, we hold the record for the world's production, we vie with the birds of the air and push eagles out of our path with our airplanes, we dive under the water with the submarine and match skill with the fish in speed and distance, we dig under the water and run trains under the bed of the river, we tunnel under great buildings and millions ride like moles to the marts of trade in the mornings and to their homes in the evening. Space is naught, we annihilate it with the telephone, telegraph and radio, we obliterate stars writing messages in the sky with letters a mile long. Then to contend that we cannot succeed in profitably distributing the most essential products to human existence, would be discounting our intelligence and slandering our manhood.

NEW PLANT DISEASE AND INSECT EXPERT FOR FLA.

A field worker specialist in trucking has been employed by the Florida Agricultural Extension Division to begin work February 1. He is M. R. Ensign from Utah, Missouri, New York, Arkansas and Georgia.

The work of this specialist will include visiting farmers and speaking at meetings of farmers, giving suggestions for the control of diseases and insect enemies of truck crops in particular. He will also help farmers in controlling insects of citrus crops. This contact with farmers will be through county agents in most cases.

Professor Ensign is a native of Utah where he received his early education and experience. He later did research work at the Missouri Botanical Garden, and finally studied at Cornell (New York) University for two years, receiving a master of science degree from the latter. In addition to his college study and research work he has had several years of practical experience along the line of the work he is to take up in Florida.

He succeeds Prof. John R. Springer who resigned several weeks ago to join the field staff of the State Plant Board.

To keep ink from spreading when marking clothes, first trace with a heavy pencil and then go over the pencil marks with the ink.

Early to start, good land, good seed, good fertilizer, right spraying at the right time,—altogether ought to bring success to the watermelon farmer.

Scab and Melanose vs. Net Profits

Every fruit grower, we believe buys fertilizer and cultivates his acreage on a pretty well defined schedule worked out in advance. His purpose is to turn the fruit crop into dollars and cents at a reasonable profit over expenses.

Intelligent spraying for prevention of disease and control of insects is equally as important as fertilization or cultivation. On all sides where a gathering of citrus growers occurs the talk runs to better fruit rather than quantity production.

Scab and Melanose are widespread diseases of current interest. Their prevention may be readily assured.

CITRUS SCAB. Spray with Schnarrs Bordol Mulsion where the infection is bad at the rate of one to forty before the bloom. Follow this up a second application ten days after the petals have fallen at the strength of one to fifty. At times it is advisable to make an application of Lime Sulphur Solution in between the two Bordol sprayings when approximately two-thirds of the petals are off. In ordinary Scab cases one application of Bordol Mulsion after the bloom at the rate of one to fifty has been effective.

MELANOSE. Use Schnarrs Bordol Mulsion ten days to two weeks after the bloom has fallen at one to fifty. The period of time in which effective spraying may be done for Melanose is confined to some two weeks. It is of utmost importance that you have material on hand ready for use and not wait until the last minute, as is so often the case, to place your order and then be held up account crowded railroad transportation which delays deliveries.

Schnarrs Bordol Mulsion will kill by contact Aphis and Rust Mite as well as Scale and White Fly. **WATCH CLOSELY FOR APPEARANCE OF APHIDS.** Where Aphids are general and have caused the leaves to curl we recommend Schnarrs 3 per cent Nicotine Contact Dust.

We urgently suggest immediate orders for such materials as you will need as keeping qualities are fully guaranteed and delay in placing the order may mean an application too late to be effective, thereby turning a potential profit into a net loss. Our Officers and Personnel at your service.

J. SCHNARR & COMPANY

Manufacturers of Spray and Dust Materials.
A Complete Line of Spraying and Dusting Equipment.
ORLANDO, FLORIDA

"No nursery tree is a first-class tree unless budded from a bearing tree of a known quality and quantity of production."

Put Your

CONFIDENCE

only in PEDIGREED TREES

The future of your grove and your success as a citrus grower depends mainly upon the proper selection of nursery stock. No matter how much you cultivate, fertilize, spray and take care of your grove, it will not produce real "first grade" fruit unless that kind of fruit has been bred into the trees at the nursery.

To get that kind of citrus tree, you must select trees of known ancestry. You must make sure that they have been propagated from trees that really have a bearing performance record of producing "first grade" fruit.

Confidence is the basis of all successful business. Are you fully confident that your grove will bring forth the quality of fruit that you expect?

Put your confidence only in PEDIGREED TREES.

Ocklawaha Nurseries, Inc.

Pedigreed Citrus Trees
Lake Jem, Florida

Phone Victoria
Thru Orlando

Telegraph
Zellwood

Write today for our price
list and Book of Truth for
Planters of New Groves.
FREE.

"Bill" Gomme Heads Horticultural Dept. Non-Acid Fertilizer & Chemical Co.

William Henry Francis Gomme, more generally and popularly known all over Florida as "Bill" Gomme, recently resigned his position as County Agent of Polk County to take charge of the Horticultural Department of the Non-Acid Fertilizer & Chemical Company of Lakeland. Mr. Gomme has long been recognized as an expert in horticulture, and his services have been for many years much in demand as judge by the various fairs and fruit and vegetable exhibits in Florida. Also Mr. Gomme has given much of his time to the growers and truckers of the state as a consulting and practical horticulturist.

Born in Hampshire, England, in June 1881, Mr. Gomme received his education in the Philological College and the Royal Botanical Gardens. In 1903 he came to the United States and became part owner and general manager of the Oakhurst Nurseries Co., of Jennings, La. Three years later Mr. Gomme assumed the position as manager of the Experi-

mental Farm of the Heywood Oil Co., of San Benito, Tex., and in 1907 was appointed as Assistant Farm Superintendent and Expert of the United States Department of Agriculture. In January 1919, Mr. Gomme became the Demonstration Agent of Lake Co., Fla., and in June of that year resigned to become County Agent for Polk County, which position he has held continuously until recently. Mr. Gomme became an American citizen in 1910.

During his term as County Agent of Imperial Polk, Mr. Gomme was highly instrumental in securing for the growers of Polk County numerous prizes and awards for the excellence of products exhibited at the South Florida Fair by his thorough and expert knowledge of horticulture.

In regard to his connection with the Non-Acid Fertilizer and Chemical Co., Mr. Gomme explained to a representative of The Citrus Industry that his services were available to the growers of the state at any time in the way of advice or

consultation about correct kinds of materials and strengths to use. Mr. Gomme further stated that by arrangement with his company he retained the right to continue his personal horticultural work.

Mr. Gomme stated that the department of which he has charge was recently created with the aim to help the fruit and vegetable growers of Florida to produce a higher quality of products, brighter and cleaner fruit, more abundant and choice vegetables. He will be assisted in this work by K. E. Bragdon.

CHEESE AND BACON OMELET:

Use $\frac{1}{2}$ cup of finely cut bacon, $\frac{1}{2}$ cup of milk or water, $\frac{1}{8}$ teaspoon of paprika, 1 cup of grated cheese, 6 eggs, 1-2 teaspoon of salt, 6 slices of broiled bacon, pepper to season.

Beat eggs slightly and mix with milk, salt, paprika and pepper. Cook bacon in hot frying pan until it begins to brown. Pour the egg mixture in a hot skillet and cook slowly until firm. Spread the cheese over omelet and place in a hot oven for two minutes. Fold, turn out on a hot platter and garnish with the broiled bacon. Serve at once with crisp watercress or radishes.

Service Makes Friends

The NON-ACID FERTILIZER and CHEMICAL COMPANY, of Lakeland, Florida, wishes to announce to the citrus and vegetable growers of this state, that they have organized a horticultural and agricultural service department, and have retained the services of Mr. William Gomme as head of this department, with Mr. K. E. Bragdon as his assistant.

It is the aim of the NON-ACID FERTILIZER and CHEMICAL COMPANY with the assistance of Mr. Gomme and Mr. Bragdon, to give to the growers and truckers of this state, all the assistance possible to enable them to produce better, cleaner and brighter fruit and better and heavier vegetable crops. We want the growers and truckers of Florida to feel free in any way to consult either or both Mr. Gomme and Mr. Bragdon at any time in regard to proper fertilizer formulas, or advice in regard to the proper methods and time of spraying and dusting.

We desire that every grower should take advantage of this opportunity to secure expert advice and assistance absolutely free, and we feel that by retaining the services of Mr. Gomme and Mr. Bragdon for this department, we are offering you the most expert advice and assistance obtainable.

Write to our service department about your needs, we will give you our best and immediate attention.

Let us help you with your Fertilizer Problems.

There is a Formula for Every Crop and Soil.

Non-Acid Fertilizer & Chemical Company

Lakeland, Florida

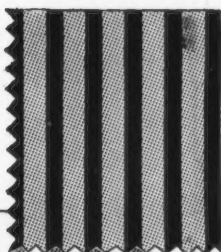
Write today for Price List and Booklet.

"Quality Fertilizer With the Acid Left Out"

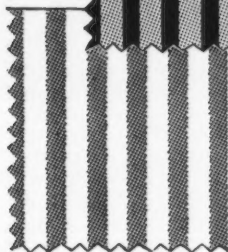
Men! here it is

**A Neat, Genteel Cloth for Work Garments
That Feels, Wears and Looks Right**

Morocco
Stripe



Express
Stripe



YOU can be proud of a garment, made of Stifel's Work Cloth. It is the most refined work cloth on the market today. It comes in two neat and attractive designs, both new and up-to-date.

The Morocco Stripe is a two-tone cloth which has a rich blue effect.

The Express Stripe has a rich, white background with either blue or black stripes.

The fine construction and close weave of Stifel's Work Cloth protects your undergarments from dust and dirt and does not irritate the skin.

Garments made from Stifel's Work Cloth wear better, look better and brighter and cost less because they serve longer. Stifel's Work Cloth has been the standard for over 75 years for work clothes.

Garments made of Stifel's Work Cloth not only wear longer than ordinary work cloth materials, but the colors are fast and they can be washed at home indefinitely, which is a big economy to you.

To make sure you get garments made of Stifel's Work Cloth, look for the Boot-shaped Trade Mark on the back of the cloth. It's your protection and guarantee.

Garments sold by reliable merchants everywhere.

Write for samples

We are makers of the cloth only

J. L. STIFEL & SONS, Wheeling, W. Va.

Indigo Dyers and Printers



Stifel's Work Cloth
Standard for over 75 years
The colors won't weaken

REGISTERED U.S. PATENT OFFICE
CANADA AND OTHER COUNTRIES.

MADE IN U.S.A.



The Lyons Fertilizer Company



The Lyons Fertilizer Company was organized on August 1st, 1924, succeeding the fertilizer department of the Exchange Supply Company. The company is capitalized at \$250,000 and the output of its factories is marketed under the name of Orange Belt brands.

The Lyons Fertilizer Company imports direct from foreign countries all materials and ingredients entering into the manufacture of its products. Peruvian Guano is imported from South America, potash from Germany, nitrate of soda from Chile, goat manure from Venezuela, bone meal and tankage from Argentine, though some bone meal is secured also from Texas and Europe.

The factory and warehouse, located at Seventh avenue and 35th, street, Tampa, Florida, of which the above is a good illustration, covers 80,000 square feet of floor space. The machinery is all new and of the most improved and modern type. The plant has a capacity of 30,000 tons yearly, a packing capacity of eighteen cars daily, and a storage capacity of 5,000 tons. J. H. Mahoney, the plant superintendent, has been engaged in making fertilizer in Florida for the past twelve years.

Mr. C. W. (Joe) Lyons is president of the company and personally directs the entire sales organization and field service department. W. L. Warring, Jr. is the secretary and general manager. I. S. Craft is

vice-president.

The company has representatives throughout South Florida as follows:

S. J. Edwards, Winter Haven, Florida; E. W. Osborne, Lakeland, Florida; R. P. Johnson, Orlando, Florida; W. W. White, Arcadia and Ft. Myers, Florida and C. M. Mallett, Frostproof; L. R. Frank, horticulturist.

Warehouses are located at Orlando, Apopka, Winter Haven, Lakeland, Tampa and Frostproof with stocks available at various other points in the state.

Though the youngest of Florida's great fertilizer companies, the Lyons Fertilizer Company is under the management of men well known and thoroughly conversant with the fertilizer situation in the state.

CROTALARIA, A NEW COVER CROP FOR CITRUS GROVES

(Continued from page 26)

will not be tempted to cut it for hay or graze it to livestock.

Mowing once or twice during the year keeps it from growing too high for convenient grove work. And mowed no oftener than this, it re-seeds itself from year to year. It can be planted as late as August in southern Florida, but should probably be planted in April or May for best results.

In the citrus grove it seems to protect the fruit against the pumpkin bug. The cover crop is not markedly injured by the bug, which pre-

fers to stay on it and not go to the citrus.

Crotalaria has not shown signs of being affected by root-knot, and this promises to make it popular with the truck growers as a cover crop.

It is said to be a great honey plant.

Efforts were made last season to test crotalaria out thoroly in pecan and citrus groves thruout the State. Seed were sent to 160-odd grove owners for trial, and many of them have reported favorably.

Experiments are in progress at Gainesville and the Citrus Experiment Station at Lake Alfred to test the value of crotalaria in comparison with commonly used grove cover crops.

As the seed supply at present is limited, perhaps persons interested should write to the Experiment Station, Gainesville, for seed information.

HONEY PUFFS: Use 2 cups of strained honey, $\frac{1}{2}$ cup of rich milk or cream, whites of two eggs, $\frac{1}{2}$ cup of finely chopped nut meats, 1-2 cup of chopped watermelon rind or candied orange peel.

Boil the honey and cream together until it forms a hard mass in water. Beat whites of eggs very stiff, then beat in nuts and watermelon rind. Pour the hot syrup over all, beating all the time. Beat until the mixture becomes creamy.

produce clean fruit -and get top prices



We will gladly spray a tree for any grower who would like to see what VOLCK will do in his own grove. We'll spray it once and you can then make your own comparison with trees sprayed three times with the material you have formerly used. That VOLCK-sprayed tree will be our best salesman.

California Spray Chemical Co.

807 Orlando Bank and
Trust Building
Orlando, Florida

W. W. THOMAS, Mgr.

When a woman of New York, Chicago or Boston walks into a store to buy oranges or grape fruit, what does she look for?

Quality!

She picks out the clean attractive fruit—and pays the price for it.

What does this mean to you?

It means that if you want to enjoy the advantages of the best markets and top prices you must grow quality. And the only way you can grow quality is to keep your grove clean and your trees free from scale and other pests.

VOLCK is the first and only spray on the market which gives practically one hundred per cent control—and insures a good crop of clean high quality fruit.

ONE APPLICATION OF VOLCK
GIVES CONTROL OVER SCALE
AND OTHER INSECT PESTS
FOR AN ENTIRE SEASON.

No longer is it necessary to go over your trees repeatedly in order to catch the succeeding broods of crawlers. This has been the custom heretofore because oil sprays used up until the introduction of VOLCK have had to be applied at very low strength to avoid injury to fruit and foliage—so low that adult pests were practically immune.

VOLCK, however, can be applied at any strength without danger of injury of any kind. It is used sufficiently strong to kill the insects in all stages of development from the egg to the adult pest. Every scale that is touched by VOLCK dies. Hence, the amazing effectiveness with one application—and the clean attractive appearance of the fruit from a VOLCK-sprayed grove.

VOLCK kills all varieties of citrus scale including mealy bug, white fly, rust mite, red spider, and other insect pests. It mixes readily with Bordeaux for fungicidal use. And it is much cleaner to use than the heavy messy oils heretofore used.

VOLCK

-an ORTHO Spray for Citrus Pests



SEABOARD AIR LINE RAILWAY

NORTHBOUND SERVICE FROM

W. P. Beach, Okeechobee, Sebring, Avon Park, W. Frostproof (Frostproof), W. Lake Wales (Mountain Lake, Highland Park, Babson Park), Lake Wales, Winter Haven (Florence Villa), Auburndale, Polk City, Centre Hill, Nakomis, Sarasota, Bradenton, Manatee, Palmetto, Orlando, Tavares, Leesburg, St. Petersburg, Largo, Bellair (Bellevue Hotel), Clearwater, Safety Harbor, Oldsmar, Tampa, Plant City, Dade City, Ocala (Silver Springs), Jacksonville.

WE SERVE ALL FLORIDA

SCHEDULES EFFECTIVE FROM WEST PALM BEACH JANUARY 28TH AND 29TH

		The Floridian	Orange Blossom Special	Seaboard Fast Mail	Seaboard Florida Limited	Carolina Florida Special	Suwannee River Special
W. P. Beach	Lv		6:25 am		8:00 pm		
Okeechobee	Lv		9:15 am				
Sebring	Lv		10:40 am		12:30 am	7:00 pm	
Avon Park	Lv		11:15 am			7:30 pm	
W. Frostproof	Lv			All Cross-State Railroad Schedules Materiality Shortened Feb. 24	Stops for Passengers Richmond and Beyond 1:30 am Observation Car	7:55 pm 8:25 pm	
W. Lake Wales	Lv		11:45 am				
(Mountain Lake, Highland Park, Babson Park)	Lv		12:35 pm			First Train Jan. 11th	
Lake Wales	Lv				1:55 am		
Winter Haven	Lv		12:10 pm			8:50 pm	
(Florence Villa)	Lv		12:50 pm			9:20 pm	
Auburndale	Lv		1:05 pm			9:50 pm	
Polk City	Lv					11:20 pm	
Center Hill	Lv						
St. Petersburg	Lv	6:10 am	10:40 am	10:40 am	9:00 pm	Local Sleepers	8:40 pm
Bellair	Lv	6:56 am	11:22 am	11:22 am	9:40 pm	Tampa	9:22 pm
Clearwater	Lv	7:05 am	11:30 am	11:30 am	9:48 pm	Jacksonville	9:30 pm
Oldsmar	Lv	7:25 am	11:48 am		10:07 pm		
Tampa	Lv	8:20 am	1:10 pm	1:00 am	11:20 pm		10:55 pm
Sarasota	Lv	One Night Out to New York 9:05 am	10:45 am	10:45 am	7:45 pm	Sleepers	7:45 pm
Bradenton	Lv		11:02 am	11:02 am	8:17 pm	Sebring	8:17 pm
Manatee	Lv		11:20 am	11:20 am	8:29 pm	Orlando	8:29 pm
Palmetto	Lv		11:30 am	11:35 am	8:50 pm	Jacksonville	8:50 pm
Plant City	Lv		1:50 pm	1:50 pm	12:15 am	10:30 pm	11:50 pm
Orlando	Lv	8:30 am				9:30 pm	
Tavares	Lv	9:41 am				10:40 pm	
Leesburg	Lv	10:10 am				11:05 am	
Ocala	Lv	11:37 am			3:25 am	1:50 am	
Jacksonville	Ar	2:40 pm	7:35 pm	7:35 pm	7:30 am	6:15 am	
Jacksonville	Lv	5:00 pm	8:10 pm	8:30 pm	8:45 am	9:00 am	
Savannah	Ar	7:05 pm	12:20 am	12:50 am	12:50 pm	1:10 pm	
Camden	Ar			6:20 am		6:30 pm	
Pinehurst	Ar			9:50 am		9:50 pm	
Southern Pines	Ar		8:30 am	9:38 am		9:48 pm	
Richmond	Ar	9:15 am	2:57 pm	5:15 pm	2:53 am	5:15 am	
Washington	Ar	12:40 pm	6:20 pm	9:00 pm	6:25 am	8:55 am	
Baltimore	Ar	2:00 pm	7:50 pm	1:09 am	7:35 am	10:15 am	
Philadelphia	Ar	4:05 pm	9:55 pm	3:30 am	9:46 am	12:20 pm	
New York	Ar	6:10 pm	12:25 am	6:00 am	11:50 am	2:40 pm	
Boston	Ar		8:00 am		6:10 pm	Sleepers	
Montreal	Ar	8:05 am				Sebring	
Quebec	Ar	2:45 pm				to New York	
Buffalo	Ar		7:25 am		8:00 pm	8:34 pm	
Pittsburgh	Ar	10:20 pm	8:30 am		7:00 pm		
Cincinnati	Ar						7:15 am
Cleveland	Ar	7:00 am	8:50 am		11:20 pm		4:45 pm
Chicago	Ar						4:55 pm
Detroit	Ar	7:40 am	8:40 pm		7:40 am	7:40 am	4:45 pm

THROUGH SLEEPING CARS ON ABOVE TRAINS TO

New York, Philadelphia, Cincinnati, Quebec, Pittsburgh, New Haven, Boston, Baltimore, Cleveland, Montreal, Buffalo, Hartford, Chicago, Washington, Detroit, Indianapolis, Louisville, Toledo, Dayton, Springfield.

CROSS-STATE SERVICE—"Over the Ridge"—Joining Gulf and Ocean. COAST TO COAST LIMITED Effective

From St. Petersburg Jan. 27th
From Sarasota Jan. 27th
From Tampa Jan. 27th
From W. Palm Beach Jan. 28th

From St. Petersburg Jan. 28th
From Sarasota Jan. 28th
From Tampa Jan. 28th
From W. P. Beach Jan. 29th

Coast to Coast Limited	Cross-Fla. Limited			Cross-Fla. Limited	Coast to Coast Limited
7:45 pm	10:45 am	Lv	Sarasota	Ar	5:15 pm
8:17 pm	11:12 am	Lv	Bradenton	Ar	4:40 pm
8:29 pm	11:20 am	Lv	Manatee	Ar	7:27 am
8:50 pm	11:35 am	Lv	Palmetto	Ar	7:17 am
9:00 pm	10:40 am	Lv	St. Petersburg	Ar	4:13 pm
9:40 pm	11:22 am	Lv	Bellair (Bellevue Hotel)	Ar	6:55 am
9:48 pm	11:30 am	Lv	Clearwater	Ar	7:35 am
10:08 pm	11:50 am	Lv	Oldsmar	Ar	6:50 am
11:35 pm	12:50 pm	Lv	Tampa	Ar	6:45 am
12:35 pm	1:35 pm	Lv	Plant City	Ar	6:20 am
		Ar	Bartow	Ar	5:00 am
2:30 am	3:05 pm	Ar	W. Lake Wales	Lv	4:15 am
	3:50 pm	Ar	Mtn. Lake, Highland Park, Babson Park)		2:55 am
		Ar	W. Frostproof (Frostproof)	Lv	
5:00 am	4:15 pm	Ar	Avon Park	Lv	11:45 am
	4:35 pm	Ar	Sebring	Lv	12:30 am
	6:10 pm	Ar	Okeechobee	Lv	10:40 am
9:35 am	8:40 am	Ar	W. Palm Beach	Lv	9:15 am
					6:35 am
					8:00 pm

COAST TO COAST LIMITED—Dining Car, Day Coaches, Sleeping Cars—St. Petersburg, Tampa and W. P. Beach Daily; Sarasota and W. P. Beach Tri-Weekly.
CROSS-FLORIDA LIMITED—Broker Car—Tampa and W. Lake Wales. Dining Car—W. Lake Wales and W. P. Beach. Day Coaches, Observation Parlor Car.

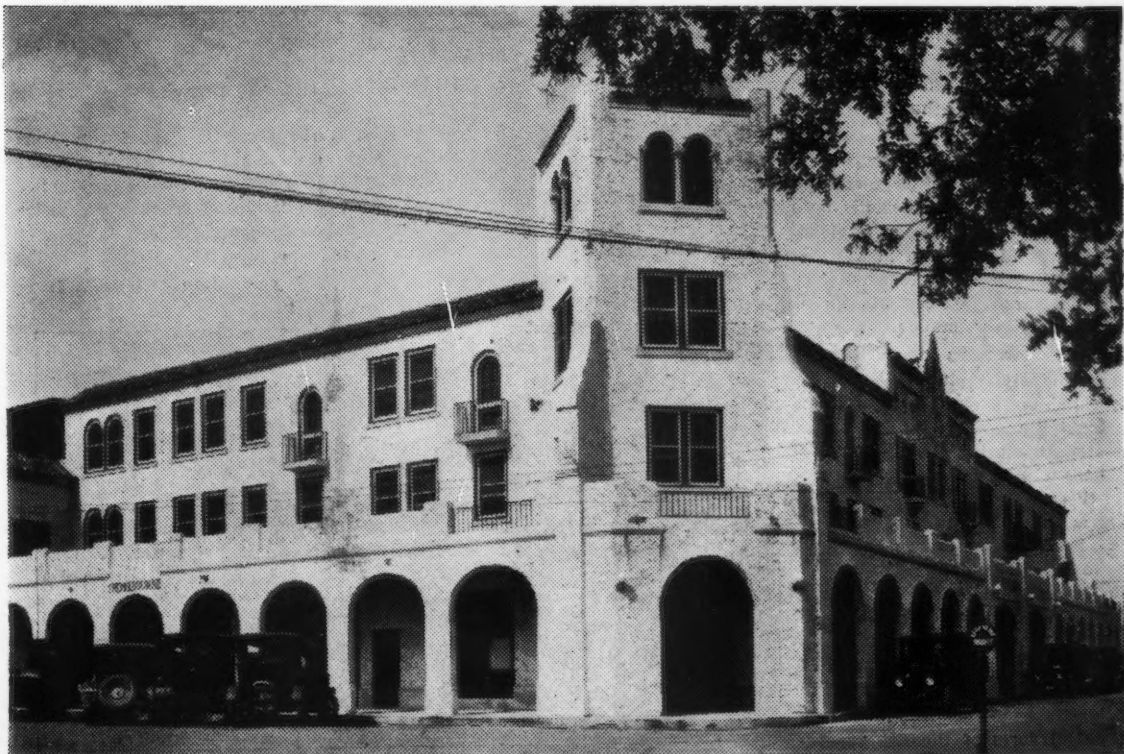
G. Z. PHILLIPS, Ass't. Pass. Traffic Mgr.,

SEABOARD AIR LINE RAILWAY, Peninsular Casualty Bldg., Jacksonville, Florida

Indian River Fruit Section



Being a sketch of the early history, later progress and
present development of noted Florida fruit section.



Melbourne Hotel,—New \$350,000 hotel at Melbourne, Florida

The Indian River Country

By George Betton Massey

To write the story of the Indian River Section of Florida, that fascinating stretch of the East Coast—richly embellished with nature's charms, it is difficult at times to temper enthusiasm with editorial caution.

Starting at New Smyrna, the old North Indian River is now called Mosquito Lagoon and river, above Titusville the headwaters of the Indian river proper begins, its broad bosom a panorama unsurpassed in America. Flowing south from New Smyrna to Sewall's point covering a distance of one hundred and thirty-nine miles, a series of sparkling inland seas and lagoons, running north and south through a narrow strip of fertile soil composed of chocolate colored loam in the hammocks, black muck in the Savannahs, and hilly sections of Norfolk sand, underlaid with coquina, shell, red clay and white marl subsoils.

Excavations in marl pits and Indian shell mounds along the Indian River country are bringing to light many rare and extinct animals.

Prior to the year sixteen hundred A. D., there was an ancient village located at Caparaca, on the Rio d'Ays, North America. Archeologists are able to agree, at New Smyrna, once known as Caparaca on the North Indian River when the latter was called the Rio d' Ays.

A race of people lived there who are said to have been of large stature. It is also said that their skulls bore evidence of a higher type of intellect. It is claimed further that in the dim and remote days the Europeans were living and working on the site where New Smyrna now stands.

Recently, elevations known to have been the stopping places of those early inhabitants as they moved up and down the coast line have been excavated, disclosing the foundations of old structures. The most important of these elevations bears the name of Turtle Mound. It is located a few miles south of New Smyrna and figures in all the history charts of Spain, France and England. Ancient drawings of it are preserved on papyrus. This mound is now the property of the Florida Historical Society and will be preserved.

Geologists and other scientists may advance all sorts of theories regarding the prehistoric Florida, but seem-

ingly indisputable evidence abounds that it was, at one time, a part of the bottom of the ocean and was probably thrown up by some great submarine convulsion.

The early history of the Indian River country must necessarily go back to the exploits of the French Huguenot explorer and colonizer, Jean Ribault, who discovered the St. Johns River in 1564 and attempted to found a new colony for the French king, who built a fort which was named after the French queen, calling it Fort Caroline. It was triangular in shape and served as a place of refuge the first year of the existence of these French colonists.

Menendez, landing near the present site of St. Augustine, set up a town, built a fort and laid plans to attack the French colony which was located at a spot on the St. Johns River now known as St. Johns Bluffs on the south side of the river, three miles west of the present town of Mayport. After futile attacks by Menendez' vessels on the St. Johns river, a change of plans for attack was made by Menendez in 1566, when he marched overland from St. Augustine, forty miles north, to Fort Caroline and by surprise attack captured and killed most of the colonists. The colonists who escaped this massacre sailed away under the command of Ribault and Launimere who decided to attack Menendez at St. Augustine by sea and a battle raged for some time at the mouth of the Matanzas river. Some of the French vessels were becalmed and captured, others were chased down the coast as far

south as Cape Canaveral, where they were wrecked. The French colonists made their way north towards St. Augustine and finally surrendered to Menendez, who failed to follow the rules of warfare when soldiers surrendered their arms. He ordered them all killed which was done as they surrendered.

The early history and earliest maps of Spanish explorers show only one place named, that of Cape Canaveral. It was thought this place was named after some Spanish officer, but the name Canaveral is a Spanish composite of (Cana) meaning cane or sugar cane and (veral) meaning a field or old field. Therefore this translation reveals to us that either the Indians or some early Spaniards cultivated maize or sugar cane field near the present site of Cape Canaveral in 1566.

In 1760 the English Crown took over Florida from Spain and governed this state for twenty years, until 1780.

Sketching the legendary phase of New Smyrna briefly, real estate operators who may be inclined to the belief that they are the real discoverers of Florida, will find upon reading the records more closely that Dr. Andrew Turnbull, a Scotchman residing and practicing medicine in London, got the drop on the business as early as 1767. About that time he and three associates secured grants from the British crown for 101,000 acres of land and brought over 1,400 immigrants from the Island of Minorca.

Cotton was planted upon a large



Typical Indian River Scenery

THE CITRUS INDUSTRY

Thirty-nine

scale and there were hemp fields, sugar cane plantations, cornfields and vineyards. It is recorded in histories that the first wine from grapes on a commercial basis in North America was made in New Smyrna. Seven miles of water front along the North Indian River were cleared and platted and docks and warehouses were erected. In seven years \$600,000 were expended in improvements made by the New Smyrna Colony. The Minorcans remained nearly ten years, when dissensions arose and the colony disbanded. There are many evidences of its early settlements, among them canals which are still used for drainage purposes.

The Minorcan colonists fled to the north to St. Augustine and appealed for protection from the Spanish Governor General, which was granted. These Minorcan and Mediterranean people seem to have survived as their descendants are to be found scattered along the coast at every inlet from Fort Pierce to Fernandina. They were agriculturists and fruit raisers in their own country and it is to be supposed that they brought cattle, poultry, grains and sweet orange seeds when Turnbull brought them over. It can be reasonably surmised that south of St. Augustine, where the Spanish were living in a fortified town, the ferocious Indians in this section of

East Florida constantly kept the Spanish troops close to St. Augustine. The Turnbull colonists wandered up and down the East Coast from New Smyrna north. They lived as squatters, occupied chiefly in fishing, cultivating the soil and raising small orange groves from 1780 to the great freeze in Florida of 1836.

It is possible that the Jesuit Priests and monks who occupied the old monastery in St. Augustine from 1565 to 1590 and the Franciscan priests, who in 1647 had headquarters in St. Augustine, for thirty-six Franciscan missionaries working among the Indians to convert them to Christianity, were the first real horticulturists of Florida. It is known that they were fruit growers and agriculturists and the early orange groves that flourished previous to arrival of Turnbull's colony may be credited to their love of sweet oranges. Seeds which they brought from sunny Spain when they came to Florida were no doubt planted in the new country. Most of Menendez colony at St. Augustine were soldiers and no records show they were agriculturists or horticulturists. History tells us that the French Huguenot, De Gourges, captured St. Augustine in 1568 and massacred all of Menendez colony of soldiers.

In 1841 a colony of some forty people left St. Augustine and sailing

down the coast in a small schooner entered Indian river inlet (now closed) and took up tracts of land north and south of Fort Capron close to what is now the old Paine place at St. Lucie.

The Cape Canaveral lighthouse was built and finished in the year 1847. A man named Scobie was the first lighthouse keeper, a relative of Captain Douglas Dummitt, founder of first Indian River orange grove. Scobie died some years afterward and his grave and tombstone still are to be found in the Huguenot cemetery just outside the city gates.

Captain Burnham homesteaded a hammock which was thickly planted with sour orange trees near Canaveral lighthouse in 1850 and was the second lighthouse keeper appointed. His relatives still own this property.

The first settler on Merritts Island was Isaiah Hall who arrived in 1850 with his family and squatted on what is known as Hall's Hammock, now called the Chase grove.

Captain Houston settled on the peninsular end of south part of Merritt's Island in 1854.

Henry Wilson, a sergeant in the U. S. Army, was detailed with three men in 1854 to guard Cape Canaveral from the Indians. He married Captain Burnham's oldest daughter in 1856.



An Indian River Orange Grove

Shortly after the Civil war, John M. Fields, an Indian war veteran, moved from Macon, Georgia in 1867, arriving at Sand Point, now known as Titusville, founded by Colonel Titus, who was a leader in the Kansas Crusade of 1855-56.

Mr. Fields moved later to Merritt Island when, joined by his wife, two sons and a daughter-in-law, they homesteaded at what is now known as Indianola. Their descendants still live at Indianola.

In 1869 Peter Whitfield arrived on the South end of Merritt Island.

Here at Canaveral lives the oldest settler, Captain Henry Wilson, a native of New York, who came here with the U. S. Army, that victorious force of Gen. Winfield Scott that took part in the conquest of Mexico, a company of which was sent to Fort Pierce, at the beginning of the Second Seminole War, his term of enlistment expiring he settled here, and has seen this county advance along lines of material prosperity.

A sketch, setting forth the points of interest in that stretch of country along the Old Indian River front road known as City Point, Sharps and

Frontenac would hardly be complete without introducing a bit of its early history.

We are almost ready to celebrate the semi-centennial of the coming of the first settlers to this portion of Brevard county. In March, 1866, John Wesley Jayner brought his family from Northern Florida and settled at Magnolia Point—later known as Dixon's Point. Their only neighbors were Mr. Houston, at Eua Gallie; Dr. Whitfield, at Fairyland, on Merritt Island, and the Carlile and Reddick families, at LaGrange, the oldest settlement in this part of Florida. Some of its residents have resided there for nearly fifty years, many of the old timers were born there—none of whom were within seeing distance.

Their only means of communication with the outside world were the sailboats on the Indian River; or by foot or mule-back along the Capron Trail, an old Indian trail leading from St. Augustine to Fort Capron. The mail came from Enterprise—some fifty miles away—sometimes as often as once a year, when someone went there for supplies.

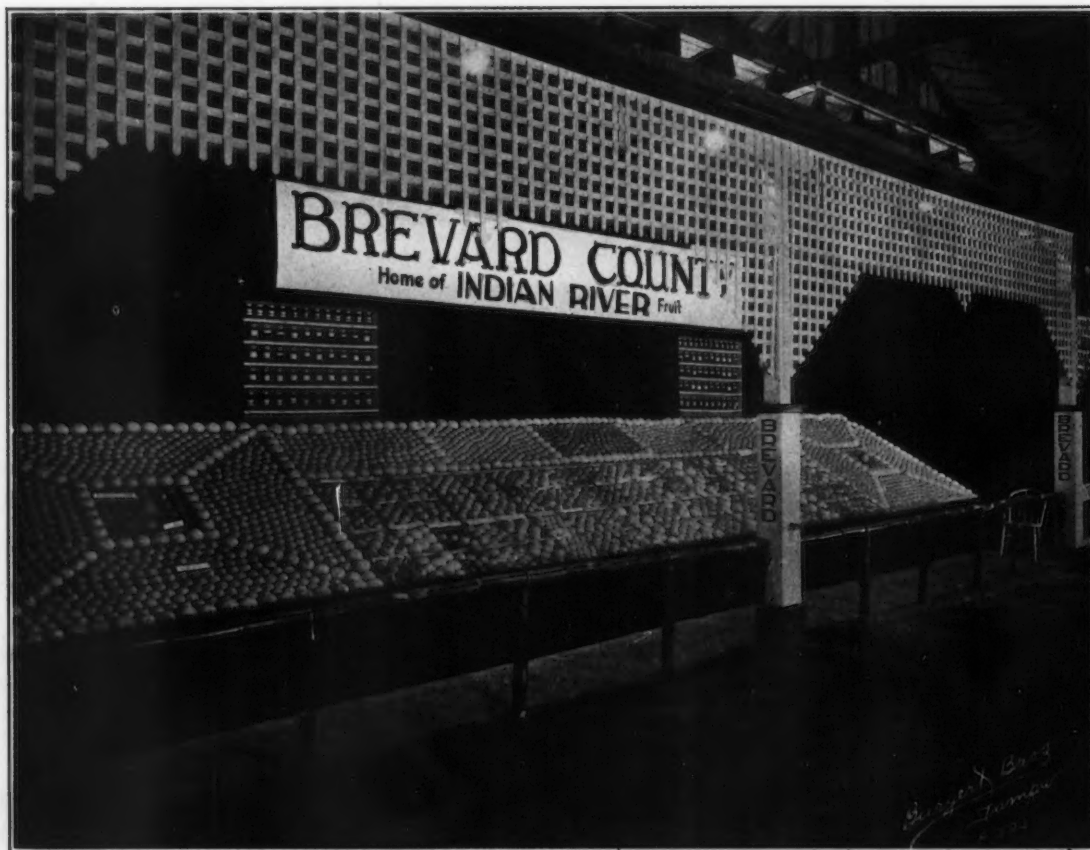
In the fall of '66, in October, the

Jayners were joined by some new neighbors, two young men, Albert and Lawrence Faber, who came down from Elyria, Ohio. They built a little palmetto shack about three of four miles north of the Jayner home and started their orange grove, thus beginning the foundation of what is now known as Sharps.

After this a few new families came in from year to year, and a postoffice was finally established at Magnolia Point, with Mrs. Jane Dixon as postmaster. Albert Faber owned the first mail boat on the river. Later, when Mr. Hatch settled at Deer Point, the postoffice was changed to that place and given the name of City Point, at which place Mr. Jake Chancey had built the first house. Here at the Chancey place, under the big live oak trees, were held the first church services.

In 1868 Captain Sharp joined the settlement and bought from Mr. Barnes what is now familiarly known up and down the coast as the Captain Sharp place. Enoch Hall, a man of influence in the community, was his next door neighbor. Through the ef-

(Continued on page 42)



Brevard County Exhibit at South Florida Fair, 1925

On and After March 1st, 1925, We Are Ready To Serve You

Our abstracts are the best that can be made. We base our reputation on quality and service. Our plant is the most modernly equipped plant in the State of Florida, and we are therefore able to give the quickest and best service.

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We Insure Titles

We have the most modern machine on the market today for the making duplicate copies of abstracts of title.



Brevard County Abstract & Title Insurance Company

In front of Court House

Titusville - - Florida

THE INDIAN RIVER COUNTRY

(Continued from page 40)

forts of Mr. Hall and Judge Usher the Sharps postoffice materialized, and Miss Lizzy Smith became the postmaster, holding the office for several years. Judge Usher, who had been private secretary to President Lincoln, had settled on the property now known as the Beal place.

With the thrift and enterprise that has always marked the life of Mr. Albert Faber, he brought in realization the first frame house ever built in Brevard county. Buying the lumber at Jacksonville, he rafted it down from New Smyrna and built his house, a suitable home for the wife he had won—the daintiest, prettiest girl along the Indian river at that time—Barbara Jayner, who, when a little girl, learned to bait her hook for 'possums in the cane patch.

From these days of pioneering down to the present is a long stretch of time, filled with memories of happy days, intermingled with struggles almost too burdensome to bear. The hard storm of '71 swept everything in its path, tearing up the frail homes of these struggling settlers and strewing on the ocean beach across from here the wreckage of the big ocean vessel, *Ladona*, which went to pieces in the gale. "It's an ill wind that blows nobody good," for many of the settlers obtained liberal supplies from that wreckage.

The high cost of living did not concern this pioneer family, for when they wanted meat they killed a fat bear cub, a deer or some of the wild turkeys that roamed about the doors of their palmetto shacks. Milk and butter were unknown quantities. They did not bother about which store sold the most granulated sugar for a dollar, for did not the Jayner's have a big sugar cane patch which supplied them with the best of molasses?

Next came Tom Saunders, then one by one Merritt Island became settled, until today, it is famed for its beautiful orange groves.

Development of the Indian River Country.

The first maps of Florida and all of its written history during the French, Spanish and English periods of control from 1513 to 1821 show exploration and settlements down the East Coast from Fernandina to New Smyrna. After the failure of Turnbull's colony at New Smyrna, that stretch of land south of New Smyrna to Fort Pierce and Fort Dallas was a vast wilderness. No record is made from 1780, when Turnbull quit New Smyrna, until the Seminole war in 1835

THE CITRUS INDUSTRY

with the U. S. Army outposts at Fort Pierce and Fort Dallas, now the city of Miami. A few squatters and early settlers in isolated spots homesteaded here and there one hundred and sixty acres. No more than sixty people lived in this stretch during those years intervening from 1780 to 1835.

The isolation of this rich territory beckoned the adventurous pioneer who came by boat down the Atlantic coast, the inland streams or up the St. Johns and crossed the country to the Indian River. No roads, only Indian trails, furnished guidance for these first settlers. The country was still full of warring Seminoles who harassed the pioneers constantly.

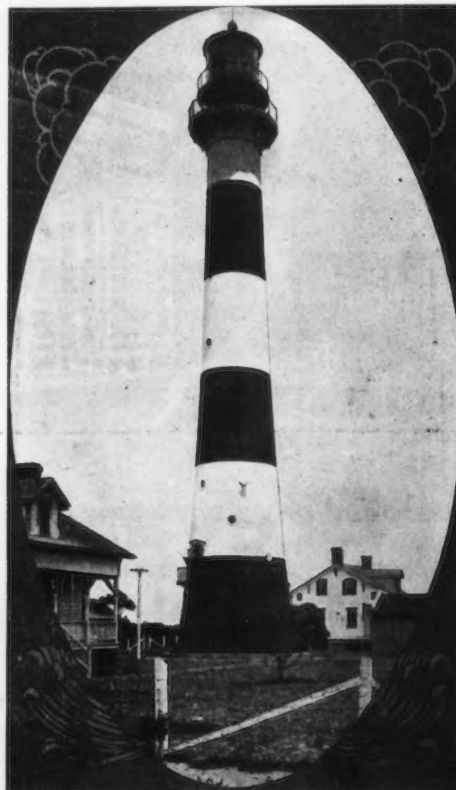
The fortune that Henry M. Flagler had built up through his masterly direction of the early period of the Standard Oil Company, left him at the age of fifty in a position to seek rest, recreation and to recuperate the health of both himself and his wife.

The first view of old St. Augustine, when Mr. and Mrs. Flagler traveled over a small narrow-gauge railroad known as the Green Road, from South Jacksonville, thirty-six miles, was anything but alluring. The remains of a worn-out community, run down, with the few hundred inhabitants

eking out an existence by fishing and raising oranges. The streets were not paved, and a general desolate air pervaded the whole town with only a tarnished past of the early fame of St. Augustine, the governing seat of four nations in East Florida.

Henry M. Flagler was a superman among men in the United States. He may have had a picture in his mind of creating another Riviera in this country. After several visits to St. Augustine in the early eighties he decided to launch and carry out his dream, the creation of an American Riviera. In 1888 he acquired some little railroads from Jacksonville to Palatka and Daytona, bringing them to standard gauge as far south as New Smyrna in 1889. During May, 1892, Mr. Flagler decided to extend his railroad further south and in the latter part of 1892 he reached Titusville, which until that time had depended on fishing and steamboats up and down the Indian and St. Lucie Rivers for transportation. The railroad reached Rockledge in February, 1893. This completes the early history of a rich territory along the Indian River that lay dormant owing to the lack of rail transportation and hard-surfaced

(Continued on page 44)



Canaveral Lighthouse Built in 1847

VERO

"Where the Tropics Begin"

The next big city on the East Coast

Andrew McAnsh, builder of Miramar Hotel, Sarasota, has selected Vero as location for new million dollar hotel, Vero del Mar, and other extensive investments.

Look Us Over --- You'll See Why!

Exhilarating year-round climate, fishing, boating on the beautiful Indian River, ocean bathing on wonderful beach, golfing on already famous courses—all with exquisite tropical setting, where the famous Indian River orange is at its best.

For information and booklet address

E. J. Sellard

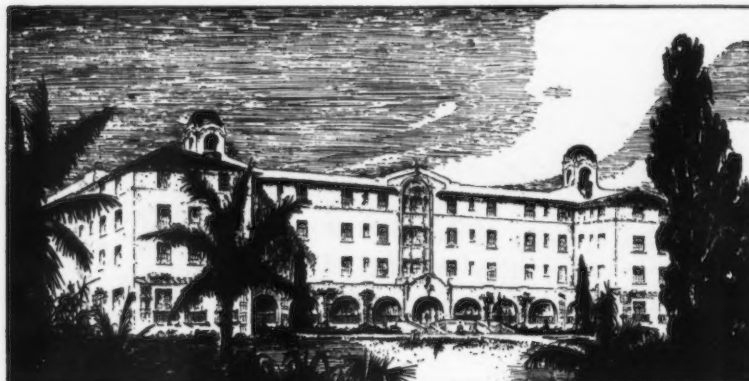
CHAMBER OF COMMERCE

THE INDIAN RIVER COUNTRY

(Continued from page 42)

roads.

Mr. Flagler was the forerunner of the modern Florida real estate developer. His buying a swamp in St. Augustine and the erection of the Ponce de Léon and Alcazar hotels on this swamp land, showed the wonderful vision of this man. He never fal-



Indian River Hotel

tered in his belief in the future of the East Coast of Florida.

In his stupendous conception he created the future of the Indian River country.

Groves Planted in 1897

In 1897 the possibilities of citrus culture began to be recognized by the residents of Dade and Broward counties. It is a matter of record that in 1897 Henry M. Flagler selected eighty acres of land at Kendall of which seventy acres were planted to citrus trees. In the same year M. H.

THE CITRUS INDUSTRY

March bought a tract of land south of Cocoonut Grove and began the development of a citrus grove. Colonel Henry Clay Roome planted a grove in the hammock land south of the Brickell home in 1897.

The first attempt at the development of citrus groves in the Everglades was made by Mr. Charles A. Walsh, former secretary of the Dem-

It also shows that the water without borax, heated to 120°F. killed the same percentage of scale insects. In several instances the purple scale females had been killed but several eggs appeared normal. While, no doubt, some of these will not hatch, there may be a few which will. The heat seemed to be more effective on the red scale eggs than it did on the purple scale eggs and, vice-versa, it was more effective on the purple scale females than it was perhaps on the females of the red scale. In no instance was a perfect mortality obtained.

EXPERTS FIND NEW CITRUS APHID INCREASING AGAIN

Recent inspection tours of entomologists into the citrus belt of Florida reveal the fact that the new citrus aphid is breaking out again. Damage done by this pest in 1924 is convincing evidence that effective efforts should be taken promptly to prevent its general spread. In fact, those who have made a study of it, are convinced that the wise thing to do is to "jump on its neck right now with both hob-nailed boots."

Spot dusting with nicotine-sulphate dust is the control measure recommended by Profs. J. R. Watson and E. W. Berger, entomologists of the Florida Experiment Station and State Plant Board. This should be done promptly. As soon as an infestation of the aphids are located in the grove, then is the time to go after them. Dust them thoroughly. Attempt to kill every single individual. Leave not a single one.

Dusting them right now is advisable for at least three reasons. First, it means getting them at the start, "a nip in the bud." Second, there are but few of the aphids that have wings right now; they cannot get away so easily as they can later on. Third, dusting now will cost less money and time than later when the aphid may be widespread.

Farmers can make their own dust by mixing together with a machine mixer 7 pounds of nicotine sulphate and 100 pounds of hydrated lime. They may buy this material already mixed, if they care to.

Delay should not be tolerated, specialists warn.

Farming is the noblest profession.

The first farmer was the first man, and all historic nobility rests on possession and use of land.—Emerson.

Preliminary Report of the Effect of Hot Water, Hot and Cold Borax Solution on Scale Insects

By W. W. Yothers, Associate Entomologist, Orlando, Florida.

It has been found by other investigators that blue mold of citrus is practically prevented by soaking the fruit in a 5% solution of borax heated to 120°F. for five minutes. From the

standpoint of the citrus industry, this is a most remarkable and marvelous accomplishment.

It was thought advisable to determine the effect of this solution on the more common scale insects infesting the fruit. The following table gives the results of the count:

TESTS MADE OCTOBER 30, 1924—ORLANDO, FLORIDA.								
Treatment	Red Scale			Remarks	Purple Scale			Remarks
	Adult Females Dead	Females Alive	%		Adult Females Dead	Females Alive	%	
Cold Borax	58	54	51.7	Several Crawlers	84	32	72.3	(with normal eggs) 16
Hot Borax	105	6	94.6	2 with Crawlers	100	1	99.	14+
Hot Water	71	6	92.2		101	3	97.11	12++
Untreated				Not enough insects	80	33	70.9	2
					+ 2	Crawlers Alive		
					++ 4	Crawlers Alive		

An examination of the above results certainly shows that the 5% borax solution did not kill the scale insects unless it was heated to 120°F.



This coming business boom brings all of us another opportunity to change our economic condition—or, at least, better ourselves. To the majority of the population, a period of prosperity merely means more money to spend. A minority sees it as a chance to save and get ahead. Trees are most heavily laden with nuts just before a severe winter. Be as wise as a squirrel.

Bank of Titusville and Trust Company

STATE AND COUNTY DEPOSITORY, TITUSVILLE, FLORIDA

Capital Stock\$50,000.00

Total Resources\$733,677.62

OFFICERS

Geo. W. Scobie.....President
Dr. J. C. Spell.....Vice-President
J. E. Nobles.....Cashier

DIRECTORS

Geo. W. Scobie.....Dr. J. C. Spell
Geo. G. Brockett.....J. E. Nobles
Geo. W. Scobie, Jr.

FLORIDA — THE EAST COAST

Its Builders, Industries and Resources



PARRISH, JESSE J.
Titusville, Florida

One of the most successful business men of the East Coast of Florida and one who reflects credit on the community in which he resides is Jesse J. Parrish, of Titusville. Mr. Parrish is a banker, a statesman, and a grower and shipper of citrus fruits. He is a native son of Florida. He was born at Bowling Green, October 11, 1877. His parents were Benjamin J. Parrish and Martha Jane (Durrance) Parrish.

Immediately after completing his education, he became engaged in the citrus fruit industry, in which line he has been eminently successful, widening the scope of his business activities from time to time. Indicative of his material progress are his connections with several commercial and financial organizations. He is secretary of the Egan Fickett Company, Incorporated, New York; vice-president of the Egan-Fickett-Parrish Company, Incorporated, Philadelphia; secretary and treasurer of the Nevens Fruit Company, Cocoa, Florida; director in the Brevard State Bank, Cocoa, Florida; director in the St. Lucie State Bank, Fort Pierce, Florida; and director in the State Bank, of Bowling Green, Florida. He is president also of the Titusville Security Company.

Mr. Parrish has given generously of his time and talents to all movements promoting the public welfare, and politics as well. His popularity throughout the district was such that he was chosen three consecutive terms to represent it in the legislature. He was a candidate the fourth time in 1924. He had no opposition in either of the four campaigns.

His fraternal affiliations are with the Masons, Shriners and Knights of Pythias. His club is the Rotary Club, of which he is president.

In 1903, Mr. Parrish was married to Miss Emma L. Hickey, at Chadbourne, North Carolina. They have three children, Jesse J., Jr., Pauline and R. Bernard.

Dummitt Grove=The Original Indian River Orange Grove

By George Betton Massey

The earliest history chronicled by the historians of the Spanish expeditions to the new world mention the finding of wild orange trees in their marches through Florida in the 16th. century. The Spaniards had conquered the Aztecs in Mexico, Columbus, Ponce de Leon, and Navarez had all touched the West Indian islands before sailing to conquer and explore Florida. Did these expeditions bring sweet orange seeds from Spain or the West Indies?

Menendez and his colony evidently brought over seeds of the various varieties of sweet Mediterranean citrus fruits. The wild orange was undoubtedly native to Florida soil but all authorities and every indication bears out the theory that the sweet orange was an importation. There is no authentic folk lore among the stories from the original Indian tribes who inhabited the peninsula which would point to the existence and use of sweet oranges prior to the coming of the Spanish explorers. We know from the earliest explorers in Florida that food of the Indians consisted of fish, oysters and wild game. The only crops cultivated by the Indians at the time of the discovery of Florida were maize and tobacco.

We have authentic records from the archives of the Spanish crown and church which record the orange groves around St. Augustine after the settlement of Menendez in 1565. These groves thrived for two hundred years and bore fruit during the Spanish Administration of Government in Florida until 1760, when the English Government took over Florida from Spain, retaining control of the territory until 1780 when it again became subject to the Spanish crown.

Turnbull, a Scotchman, brought over a colony from the orange producing sections of the Mediterranean and the Isle of Minorca. These colonists evidently brought seeds, among them sweet orange seeds, and proceeded to plant them in their new home. These colonists were bonded to Turnbull who evidently treated them badly as many deserted him and ran away, some north and some south of New Smyrna along the Atlantic Coast.

During the period of English oc-

cupation of Florida from 1760 to 1780, many adventurers of English extraction came to Florida, among them the Sire of the Dummitt family, Capt. Douglass Dummitt, who first came to St. Augustine, the seat of English territorial government, from English possession of the Barbadoes Islands. One of his sons, Douglass Dummitt, Jr. sailed south to Cape Canaveral in 1827, exploring that section from Cape Canaveral to New Smyrna. He squatted and finally homesteaded a hammock lying on a narrow strip of land, between the Mosquito Lagoon and the Indian river. This particular land of rich chocolate colored sandy loam with shell sub-soil, so Capt. Dummitt relates, was already set out in 1827 with several acres of sweet orange trees. Mr. Dummitt built a substantial home which was burned down many years ago. However, the coquina rock fire place, chimney and walled rock well are still standing in the grove today and some of Capt. Dummitt's descendants and other relatives found their last resting place in the family burying ground in the grove.

The importance to the citrus industry in Florida of the Dummitt grove on north Merritt's Island is the fact that it came through the great freeze of 1836 without material injury. It was during this freeze that the St. Johns river froze over and the extreme cold killed all known sweet orange groves planted up to that time, leaving only the Dummitt grove untouched by the killing cold.

According to the best authentic and personal chronicles of the early settlers in the vicinity, some of the trees now standing in Dummitt grove are more than one-hundred and fifty years old. The original root stocks and trunks remain today as testimonials to the fortunes made from these trees that have borne fruit for more than a century and a half and which are still producing. After the great freeze of 1836 this lone grove remained to supply the bad-wood for Florida's most famous sweet pineapple orange industry that has heralded the fame of the Indian river orange around the Globe wherever good fruit is known.

Capt. Dummitt in late life became collector of the port of New Smyrna during the sixties and in the course of his duties when the Civil war was being waged, he was instructed by the secretary of the Confederate navy to extinguish all lights on the Florida coast. He transmitted this order to Capt. Burnham, formerly of the light-house service at Cape Canaveral. Captain Burnham dismantled the light houses and stored the mechanism in his orange grove on Banana river where he moved his family. In this connection it may be mentioned that Captain Burnham in the early forties discovered and named the Banana river, also New Found Harbor, Buck and Georges Islands which lie east of Merritt's Island.

The descendants of the original Captain Douglass Dummitt are scattered throughout Florida. Some are living in the north, but the lure of Florida draws them back periodically and their heart-strings are deeply touched when they visit the old homestead where they spent their childhood days.

This narrative of the original Indian River grove is based upon the chronicles of an early settler of Merritt's Island, a gentleman by the name of Phelps, who kept a diary reaching back over a period of eighty years prior to his death some thirty yearty years ago, which takes the record back for a period of one-hundred and ten years from the present time and even at that early day, according to his records, Dummitt's grove dated back beyond the period of earliest local recollection.

Thus ends the story of the original Indian River grove, the oldest perhaps on the North American continent.

MAGNOLIA—(Chinese Species)

All of the Chinese varieties produce their flowers in the early spring; before the leaves appear, and several sorts produce, or continue to bloom, at periods during the entire summer. No selection is complete without some of these desirable plants.

Capitalize the experiences of others; study the winning and losing methods of other farmers.

St. Lucie County--"The Sweepstakes County"

St. Lucie County, Florida, is located on the wonderful Indian River, 112 miles south of Jacksonville, 109 miles south of Daytona, 40 miles north of Palm Beach and 100 miles north of Miami, in the center of the world-famed east coast of Florida.

This county has 50 miles of water front on either side of the Indian River; there is no more beautiful body of water to be found anywhere besides it affords an inland waterway canal which is a great asset in in the matter of transportation. The Florida East Coast Railroad and the Montreal-Miami branch of the Dixie Highway pass through St. Lucie County north and south.

St. Lucie County has an area of 1,152 square miles, or 806,000 acres. About ninety per cent, or 725,400 acres, is suitable for agricultural or

horticultural purposes.

High Quality of Indian River Fruit

The outstanding factor of St. Lucie County's citrus crop is emphasized by the record the county has made the past seven years at the big fairs of the state. Also the fact that citrus fruits from this county bring the highest price in all the northern markets. 1919, 1920, 1921, this county's citrus exhibit was awarded the Grand Citrus prize at the State Fair at Jacksonville. In 1922, 1923, 1924 and 1925, was awarded the same prize at the South Florida Fair and Gasparilla at Tampa, thus winning in seven consecutive exhibits this high award over all competition. This is an achievement that perhaps no other county in the country has ever reached in an exhibition of any principal product, and one for which St. Lucie county is entitled to the credit which has been awarded her. These repeated successes are convincing ev-

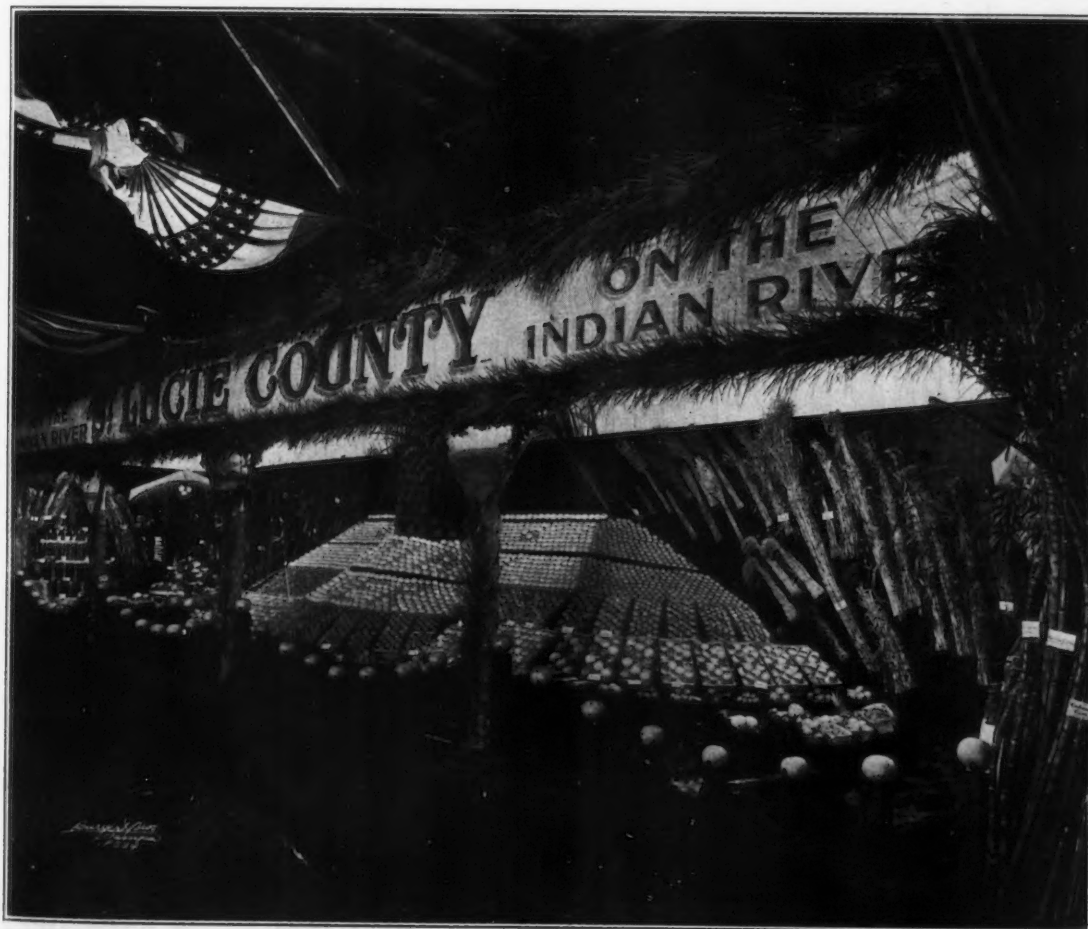
idences that the Indian River section produces fruit of the highest quality and that the successive winning of highest awards is no accident.

VALLEY CITRUS GROWERS

PROPOSE SEVERAL LAWS

The Valley Horticultural society board of directors has appointed a legislative committee to take up the propositions of securing legislation prohibiting the shipping of green citrus, and also seeking to prohibit the shipment into Texas of fruit from California and Florida with scale on it.

The committee will also seek to have some kind of a law passed providing a heavy penalty for the offense of stealing citrus, as this is one of the basic industries of the Valley, and its existence is threatened by the continued depredations of persons who have been shipping it out in trucks after it is stolen, according to reports.



St. Lucie County Exhibit at South Florida Fair, 1925

Progress of the Indian River Country

Here is the story you have from every lip, even the oldest citizen of each town has to admit it: Titusville, Cocoa, Melbourne, Vero and Fort Pierce are building and growing, trucks loaded with sand and cement, bricks and tile roll along streets, the Florida East Coast Railroad sidings are congested with carloads of crushed lime rock for the streets of new suburbs, the rebuilding and straightening out of the new Dixie Highway is progressing rapidly. In every town along the Indian River, engineers armed with transist, axes, rods and chains blaze new streets for growing cities.

It matters not which town you visit they are laying out new suburbs bridging the Indian River, developing their beaches that lie on the Atlantic coast opposite these cities. Everywhere artisans are building those delightful Spanish homes, yachts and golf clubs, new blocks, new business establishments are rapidly arising, old fronts are being stuccoed in the latest Spanish or mission styles of architecture, tinted in those shades that blend harmoniously with the sky and the surrounding foliage.

Everything is a bustle. The "Cracker" is coming into his own, vieing with the northern newcomer in increasing his wealth and helping to develop the town and surrounding country he is boosting for. The programs in these Indian River towns are amazing. Hotels, apartment houses and new homes so urgently needed are planned and started before the week is over—it all is so sudden, so remarkable, but absolutely the result of the 300 per cent increase in the population in each town the last six months.

New theatres, new golf courses, miles of sidewalks, new banks, new school buildings, yacht basins, parks, municipal piers are on the way. The East Coast Railroad has had such a sudden increase in tonnage and passenger business that the officials are at their wits end to serve each community properly, bank clearings are doubling and trebling. The tremendous increase in real estate trading is startling the northern world and has the oldest citizens guessing. The back country is also participating in the backwash of the surrounding towns' prosperity, and acreage, farms groves and property facing the new

cross state roads are mounting in value as each transfer is made—the Indian River country is awake, its progress moving at a rate that seems to make the former year's gait a snail's pace.

A SATSUMA GROVE BEARING

While en route from Gulfport Miss., to Mobile, says the Gulfport Herald, John Dedeaux states he saw a satsuma orange grove which had been saved from the freeze of a year ago, and under many of the trees could be seen small oil stoves, which no doubt were used when a low temperature was expected. The grove, Mr. Dedeaux stated, appeared to be about 8 or 10 years old, the trees having a spread of branch at least eight feet.

J. N. Wisner, of Bay St. Louis, saved his grove of some 500 trees by method of mounding the tree at its roots. Although not bearing this year the trees are vigorous and growing rapidly.

Plan before you do. Lay out the year's farm work before spring comes.



Melbourne State Bank

We are Members of the Depositors

Guarantee Fund

ALL DEPOSITS INSURED

We Solicit Your Account

Offering You

SERVICE

COURTESY

EFFICIENCY

INSURANCE

Melbourne

Florida

Careful Banking

—requires, among other matters, a thorough knowledge of the character and previous record of the business success of the officers and directors of the institution in which your banking is done. A glance at the names of the officers and directors of the Melbourne State Bank reveals a list of men whose reputations are well known and thoroughly established.

OFFICERS

H. M. Jernigan, Vice-President
(Active)

Frank L. Bills, Vice-President

Chas. G. Shaffer, Cashier

DIRECTORS

F. C. Powell

H. R. Earle

John B. Rodes

H. M. Jernigan

Frank L. Bills

D. D. Ernsberger

A. C. TERWILLIGAR

TITUSVILLE, FLA.

GROWER & SHIPPER

INDIAN RIVER ORANGES

A. M. Terwilligar started growing and shipping Florida oranges in 1871. Constantly striving to grow and ship the best fruit in the state, he finally located permanently in the Indian River section. His son also believes that the Indian River section produces the world's finest oranges.

Titusville, Florida

Founded by Colonel Titus, who was the leader of the Kansas Crusade in 1855-56, County Seat of Brevard County, named in honor of Dr. John Brevard, a North Carolina patriot of 1775. Brevard county is seventy miles in length, the heart and greatest production center of the famed Indian River oranges and grapefruit. Titusville is a fast growing prosperous city of nearly 2000 population. The last year has witnessed its greatest advance in real estate activity and many new business buildings, apartment houses, hotels and beautiful homes have been erected, more are daily being planned. Additional subdivisions are being laid out to meet the newly awakened demand for homesites. An active chamber of commerce is functioning, a real estate board of live wire realtors is destined to do wonders for the advancement of real estate in this thrifty city.

Titusville is the hub of the head-water section of the Indian River, the New Dixie Highway running north and south through the city. The Cheney Highway, the cross-state highway from Tampa and Orlando enters the East Coast three miles south of Titusville. The Florida East Coast railroad furnishes thirty-one trains a day during the winter season—the Sanford East Coast also terminates at Titusville. The back country is productive around Titusville, new lands are being thrown open to settlers at this time.

Titusville has a prosperous fishing industry, two banks serving the community. Recently one of its banks moved into a handsome banking structure just completed. A large Abstract and Title Insurance Company has completed a fine home and is open for business.

Titusville's progress will receive a wonderful impetus on the opening

sale of beautiful sub-tropical subdivision north of the city that is planned by a Miami realty wizard.

Titusville has bridged the Indian River and has a highway to a magnificent stretch of beach on the Atlantic Ocean. Subdivision lots here await the lover of ocean bathing.

The Titusville Chamber of Commerce extends perfect co-operation to all new comers.

Titusville has good schools, churches, and a refined atmosphere prevails in its homes.

FILM SATSUMA ORANGES

A reel of motion pictures showing the production of Satsuma oranges, designed to interest people in the vicinity of Savannah in the growth of

the fruit, has been prepared for the Seaboard Air Line Railway development department for display in towns along the border of the state and Florida. Three members of the agricultural committee of the Savannah Board of Trade are accompanying W. T. White, railroad development agent, on a trip through the section to show the picture.

Strong flavored vegetables—such as cabbage or onions—should be cooked in rapidly boiling water; leave off the top of the pot or boiler.

Spray Irish potatoes with 5-5-50 bordeaux mixture to control late blight.

CRATE MATERIAL

Cumner Orange Boxes
Cumner Tomato Carriers
Fruit Wraps

Vegetable Hampers
Cypress Field Crates
Box Nails

**BUILDING MATERIAL**

Bond's Yellow Pine
Atlas Cement

Neponset Roofing
Masury's Paints

Dennison Wall Tile Builders Hardware

Yards all along the East Coast of Florida

Titusville

Stuart

Cocoa

West Palm Beach

Eau Gallie

Okeechobee

Melburne Fort Pierce Miami

MODERN MILLWORK PLANT at FORT PIERCE.

THE CITRUS INDUSTRY

Cocoa, Florida

A fast growing Indian River resort and business center opposite the famous Merritt Island which is reached by a bridge, connected with splendid roads on Merritt Island which is forty miles in length. A highway from Merritt Island connects with the beautiful beach on the Atlantic Ocean due east from Cocoa. The surrounding country and Merritt Is-

land furnishes a large business for Cocoa in the wonderful citrus fruit that this section is famous for. Many and productive groves are located on Merritt Island.

Cocoa has opened many beautiful sub-divisions and has a large colony of residents. A beautiful tourist hotel south of Cocoa and new Metro-

politan theatre and a new bank building add to the attractiveness of Cocoa and its sister city Rockledge. The new Dixie Highway passes north and south through Cocoa and the New Cheney Highway from Orlando enters north of the city. The Florida East Coast Railroad serves Cocoa from the north and south.

Melbourne, Florida

Founded in 1878 and named by Charles Hector after his native city, Melbourne, Australia. Located on the highest bluff of the Indian River, connected by a hard surfaced road and bridge with Melbourne's incomparable beach. A superb casino graces Melbourne's beach. Many beautiful bungalows, cottages and beach estates are planned to be built in the near future on the beach. The intrinsic values of Melbourne real estate are admitted, the last few months many hundreds of thousands of dollars worth of real estate has changed hands. Greater activity is promised this spring and summer in Melbourne

and its surrounding rich back country.

Melbourne is noted as an unsurpassed location for a winter resort. The Melbourne Hotel is the last word in appointments that one would expect in "America's Riviera"—Florida. A prosperous appearing business section is embellished by the newly erected Melbourne State Bank building and the realty headquarters of the Woodroffe Company.

Melbourne has every city convenience and its new subdivisions are modern and attractive. Many captains of finance and industry are pouring thousands of dollars in Mel-

bourne's back country. There are several handsome estates in Melbourne's suburbs.

Melbourne is the East Coast junction point of the center state highway from Tampa and Kissimmee. The Dixie Highway runs north and south through the city. The Florida East Coast Railroad furnishes the city with a trunk line railroad from the Northern and Western States and South to Cuba. Melbourne also has a railroad running west to Deer Park.

Melbourne's wondrous vista and matchless beauty of location have captured many casual visitors who today are among its boosting citizens.

THE MELBOURNE HOTEL

Probably no single factor of consequence having to do with the civic life of this increasingly popular resort is becoming more recognized with each passing day as primarily an asset of paramount import than the new \$350,000 Melbourne Hotel, opened November 1st. One has but to give a casual glance to the new skyline of Melbourne as he approaches along the bosom of Melbourne's tranquil waters to note the

splendor of this new achievement—the architectural beauty of its lines and majesty of its setting, overlooking, as it does, miles of waterfront, its Mission towers agleam in the soft moon light or standing out in bold relief against the splendor of the tropic sun.

HARRY DRIVER MGR.
MELBOURNE, FLA.

Allen Picking Bags

Are the Most Economical for the Handling of Citrus Fruit

**No Drop
No Bruise**

This Means More Money for Your Oranges

For Sale By

Exchange Supply Company

Tampa
Chase & Company
Sanford

American Fruit Growers
Orlando

Standard Growers Exchange
Orlando

I. W. Phillips & Co.
Tampa

ALLEN PICKING BAG COMPANY

Orlando, Florida





James H. B. Woodroffe

Fifty Billion Dollars Awaiting Investment

On the Plains of Hesitation bleach the bones of countless millions who, at the Dawn of Victory, sat down to wait—and so waiting—died. Oh! It's great to die—Advancing on.

Results Count

We succeeded because we know our business and how to make proper presentation to investors who are looking for opportunities. **WE KNOW WHERE THEY ARE AND HOW** to present for their consideration high class propositions of merit—and that's the only kind we handle.

Why be poor in the presence of abundance? There are some men who are just plain quitters but to us the most pitiable sight in the world of failures is the man who will not **START**. Such men we can not help—our organization can not benefit them because they are helpless and hopeless. But to you, who are none of these, we offer our services. Let us, therefore, be good friends and begin **NOW**. Cast aside Doubt, Fear and Indecision. Let us show you some good buys.

Fifty billion dollars is reported to be the annual income of the American people waiting for investment in propositions of merit.

THE WOODROFFE COMPANY
INVESTMENTS
MELBOURNE, FLORIDA

Vero, Florida

The second largest city in St. Lucie County, surrounded by Indian River orange and the famous St. Lucie County grapefruit groves, has four large packing houses and a wonderful back country possessing unlimited citrus growing and early vegetable growing possibilities.

Vero is two miles west of the Atlantic ocean and has a fine bathing beach. Vero business section has undergone a wonderful change, new

business blocks, theatre, hotel and bank recently erected which give it a snappy city appearance. Here the hustle and bustle of real estate activity is evident on all sides.

Vero is jumping to the front, a live chamber of commerce with the co-ordination of its progressive population has worked wonders. Many new building projects are planned and before this time the foundations will be laid.

Vero is located on the Dixie highway which runs north and south. It also is served by the Florida East Coast railroad. Climatic conditions are ideal in this section and Vero's golf links are one of the sportiest and most picturesque in the state of Florida. Vero welcomes capitalists, Lomeseekers and that large colony of American hustlers who are helping to develop Florida.

Ft. Pierce, Florida

Ft. Pierce is named after President Franklin Pierce. Here in 1835 a company of soldiers, formerly under General Winfield Scott in the conquest of Mexico, were located in an outpost during the Seminole Indian War.

Modern Ft. Pierce is a lively city of a population of over five thousand. The lower center of the famed Indian River orange and grapefruit section, St. Lucie county, of which Ft. Pierce is the County seat, also is noted for the annual grand sweepstake prizes it has captured at the Tampa South Florida Fair, the greatest citrus show in the world.

St. Lucie pineapples and other tropical fruits grow prolifically along the high sandy ridges of the Indian River banks. Modern scientific drainage has made possible the rich production of almost every vegetable for the winter table in the surrounding back country.

All roads lead to Ft. Pierce. It is the terminus of the cross-state highway from Okeechobee, tapping the roads of the scenic highlands and the roads leading from the west coast of Florida. Ft. Pierce as a road center has the same relative situation for values as a prominent cor-

ner in a large city. The Dixie Highway and the Florida East Coast railroad pour the hundreds of thousands of tourists through its main streets in the winter.

Ft. Pierce is a busy town—busy every month in the year. It is a railroad center and division point. The railroad shops produce a large yearly payroll, its fishing, fruit and vegetable business amounts to millions of dollars a year.

The Ft. Pierce Chamber of Commerce is the pride of the Indian River section of Florida, active, wide awake, it extends every cooperation to the newcomer.

Ft. Pierce's greatest development project is the Causeway and Inlet project—the causeway will connect the Tropical beach on the Atlantic Ocean which is lapped by the gulf stream off shore a few miles. A five thousand dollar casino with an outdoor swimming pool and bath houses is the center of the wonderful Ft. Pierce beach subdivision. Its streets are lined with coconut palms and Australian pines.

The new Inlet is being dredged by private funds. The channel, seventeen and a half feet deep and a hundred feet wide to the turning

harbor to the docks of Ft. Pierce. This will give direct boat connection between Miami, Ft. Pierce and New York City.

Ft. Pierce business section will amaze the infrequent visitor and impress the newcomer from the north. Stuccoed, in Spanish architecture the down town portion of Ft. Pierce is modern in every respect.

Ft. Pierce hotels and apartment houses afford every comfort to the traveler, its churches, schools and theatres achieve an enviable position in its ensemble. Climatic conditions, one of Ft. Pierce's greatest assets, permits golfing, boating, fishing and motoring over its smooth scenic Indian river drive every day in the year.

The activity in real estate in Ft. Pierce has attracted a large real estate colony and fortunes are being made where values are still low enough that one can afford to buy.

The glories of Ft. Pierce have never been fully exploited. Situated on the rippling sun-kissed waters of the broad bosom of the famed Indian river, it beckons the lovers of nature, the tired business man, the capitalist, the enterprising thousandaire middle class of the north.

MARKET IN GREAT BRITAIN FOR GRAPEFRUIT AND ORANGES

(Continued from page 5)

grapefruit, however, can be placed on the market at prices much the same as those from other sources.

As for oranges, freight rates and growing expenses make the American product very high priced compared with oranges from Spain and Italy so that a large business in this field would be rather difficult to build up. There is a certain limited market for the highest grade orange. The more expensive shops are selling California seedless oranges at retail for sixpence each (about twelve

cents) whereas the best Jaffa orange a very popular orange of the highest quality, retail in London at 3 pence (about 6 cents) each. Freight charges from California are high and this will have an important bearing on exports from that state. Florida is in a better position with respect to British trade so far as freight rates are concerned and competition may be developed with the cheaper-priced Jaffa oranges. There is a possibility Mr. Egerton states, of a limited business in the English market though it should be remembered that 85 per cent of the total imports (6,500,000 cwt.) of oranges were from Spain, in 1923, averaging about 17 shillings per hundredweight in value, c.i.f.

London, whereas only 0.4 per cent (or 29,000 cwt.) of oranges were from the United States, averaging One Pound and Eleven Shillings per cwt.

The 16 degree freeze of a year ago has failed to shake the faith of Santa Rosa county farmers in the satsuma, a recent survey by agricultural agents revealed. The investigation showed that many groves which were hard hit by the freeze are being set out anew. Thousands of trees which were either killed or stunted by the record breaking cold spell have either been replaced or "doctored".

"A BILLION DOLLARS A

YEAR TO FEED INSECTS"

(Continued from page 9)

that the potato bug, as well as such pests as the San Jose scale and a number of others, were carried by the railroads throughout the country, and in consequence have become numbered among our most costly farm pests.

Undesirable Immigrants

Quite another class of insect pests are those which have been accidentally introduced into America through commerce in plants bearing infestations of such pests from other lands, principally the Old World. Many of these pests are of the greatest importance, such as the San Jose scale of fruit trees, the Hessian fly, the Japanese beetle, the Gypsy moth, the European corn borer, the Oriental peach moth, the alfalfa weevil, and many others. In their native countries most of these insects were not pests of great importance, but immediately have become such in their new home in America because of the lack of the natural restraining influences which were left behind when these insects were removed to American soil. Pests of this class often do immense damage before they are gotten under control, and the entomologists of the Federal service are constantly engaged in warfare on a comprehensive scale against these undesirable immigrants. One of the first steps taken to combat insects is the establishment in America of their natural enemies, which invariably exist in the country of their origin. With this purpose in view, the Bureau of Entomology has established stations in Japan and in France. It also maintains representatives in Hawaii and the Canal Zone, and frequently sends experts to various foreign lands on missions connected with its bio-

THE CITRUS INDUSTRY

logical researches.

The Bureau of Entomology also maintains a group of scientists devoted to the investigation of insects which affect the health of man, such as mosquitoes, house flies, blow flies, and the insect pests of domestic cattle.

Beneficial Insects

Although the activities of the Bureau of Entomology for the most part are directed toward the destruction of various insect pests, it also maintains a corps of skilled workers who are engaged in determining the best means of rearing and maintaining insects of importance to the welfare of man. This organization studies the honey bee and the direction of the energies of this industrious insect to the profit of the bee-keeper. Although for centuries man has claimed dominion over the honey bee, he really has not been able to domesticate it; hence the necessity for an intensive investigation of the insect. This includes an investigation of the diseases of the bee as well as many other interesting studies.

Personnel of the Bureau

The personnel of the Bureau of Entomology includes a corps of 250 or more professional entomologists and approximately 40 sub-professional workers. The professional entomologists are recruited by the United States Civil Service Commission largely from the graduating classes of the State universities and agricultural colleges. From time to time the Civil Service Commission has examinations open for positions of professional entomologist of the several grades, and also for the sub-professional positions. Wherever practicable the higher positions are filled through promotion. Those who are interested in employment under the Federal Government in this important and interesting work may place their

Fifty-three

names on file with the Civil Service Commission at Washington to be notified when examinations are announced.

GOOD PROSPECTS FOR

MESSINA LEMONS

With an abundant rainfall during November the "primofiore" lemons ripened well and the harvest is pronounced good, states Vice Consul Alexander P. Cruger, Messina, Italy, in a report received in the Department of Commerce. All orders given for the new crop have been filled. Shipments during the month of November totaled 114,015 boxes of 88 pounds gross weight, a gain of 69,955 boxes over the preceding month. As usual, the heaviest shipments went to England, Germany, and the United States. England led with 48,098 boxes, followed by Germany with 25,140 boxes, and the United States with 23,205 boxes. Actual quotations by local exporters for "primofiore" lemons range from \$1.60 to \$2.25 per case of 300 to 360 lemons, gross weight about 88 pounds, cost and freight included.

Florida's principal crops were worth over \$105,000,000 to the farmers in 1924, according to the agricultural statistician.

M. F. MOORE

REAL ESTATE

INSURANCE

and RENTALS

TITUSVILLE, FLORIDA

AGENTS FOR OCEAN BEACH
LEADING GROVE LANDS
INSURANCE FARM LANDS
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Total Resources -----\$1,005,090.18

St. Lucie County Bank

OFFICERS:

F. G. McMULLEN.....President
G. M. FLEMING.....Vice-President
J. J. PARISH.....Vice-President
O. NOBLES.....Cashier
EDWIN RADINSKY.....Asst. Cashier

What Figures Lack

Figures lack the human element, an essential of mutual confidence so necessary to satisfactory banking relations. So at this bank, the complete and complex mechanism of a world-wide banking service is kept a living, human thing by the personal relationships which exist between our customers and our officers.

SPOT DUST THE CIT- RUS APHID AT ONCE

"A stitch in time saves nine" runs the old adage, but the entomologists of the Experiment Station are of the opinion that "a puff in time" may save nine thousand. The new citrus aphid is increasing but it has not yet generally spread throughout most groves. Altho present in most groves, it is generally confined to a comparatively few young trees that were carrying new growth during December and January. Moreover there are comparatively few winged individuals in the colonies, which means they will not spread so rapidly from one tree to another.

This affords the grower an opportunity to deal the pest a blow that should be very effective and at a comparatively low cost. But the blow must be struck at once. Every day's delay will render the control measures less effective and more costly.

All citrus growers are strongly urged to inspect their groves two or three times a week and dust all aphids found. One with a little experience can very quickly spot the infested trees and all infested twigs on the trees should be dusted thoroly so that every single aphid is killed. There is very little curling of the leaves at this time and it should be possible to reach every aphid.

The Station has found 3 percent nicotine sulphate dusts very effective for this dusting. Dusts of calcium cyanide are also effective.

In a few groves the infection has become general. This is particularly true in some groves and in some groves in low, moist situations and groves which were cultivated during the winter so that there was constantly more or less new growth. It is strongly advised that the growers give such groves a spray of oil emulsion such as is commonly used for purple scale and whitefly. Very few blossoms have appeared on the trees as yet and until that time, and in the comparatively cool weather of the first part of February it is not likely that any very severe burning will result from the use of oil emulsion.

Where it is found necessary to treat the entire grove, spraying with oil emulsion will be cheaper than dusting with nicotine sulphate dust, but where the infestation is not general, spot dusting will be cheaper. Growers are urged to spot dust until the aphids become so abundant as to make a general spraying or dusting necessary. As the profusion of blossoms appears and the young fruit begins to set, spraying with oil emul-

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sions will have to be discontinued. It is very important that the growers take active measures to control the aphids at once

JAPANESE ORANGES ON THE VANCOUVER MARKET

Consul Harold S. Towell, Vancouver, British Columbia, states in a report received in the Department of Commerce that but 50,000 bundles of Japanese oranges were imported for sale in Vancouver this season, as compared with 110,000 bundles in the 1923-24 season. Because of the large prices this season have varied from \$1.30 to \$1.50 per bundle.

CLASSIFIED ADVERTISEMENTS

The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

REAL ESTATE

WANTED—To hear from owner of farm for sale, for fall delivery. O. K. Hawley, Baldwin, Wis.

FOR SALE CHEAP—Eleven acres high, rooly citrus land; 4 acres cleared with small house, and large nice bearing orange trees full of fruit. Nicely located near Altamonte Springs, Fla. For particulars write H. A. Lunquiere, 41 N. W. 29th St., Miami, Fla.

WILL EXCHANGE West Texas cattle ranch for unimproved or improved land in Florida. What have you? Give price and full particulars. T. E. Bartlett, 3410 McKinley Ave., El Paso, Texas.

EARLY BEARING Papershell Pecan trees, budded or grafted and guaranteed. Great shortage this year. Write for catalog today. Bass Pecan Company, Lubberton, Miss.

Want to hear from owner having farm for sale; give particulars and lowest price. John J. Black Chippewa Falls.

NURSERY STOCK

FOR SALE—Cleopatra Mandarin seedlings. September delivery, enter order now. Cavendish banana plants and avocado trees. Write for price list. R. E. Skinner, Hillsboro Hotel, Tampa, Florida. May-4t.

BANANA PLANTS for sale. Improved Cavendish, Hart, Orinoco, Ladyfinger. Information free. W. E. Bolles, Oldsmar, Fla.

"BOOK OF TRUTH"
For planters of new groves
, is yours for the asking.
Write Today.

OCKLAWAHA NURSERIES INC.
"Pedigreed Citrus Trees"
Lake Jem, Florida

POLK LAKE NURSERIES
Offer to the grower young trees of standard variety, backed by 30 years of nursery experience and a guarantee which only honest dealing can justify. For full information address A. H. Sloan,

Box 413, Bartow, Fla.

AGENTS WANTED—We want good, reliable parties to act as our agents in their local communities, selling our citrus trees on a liberal commission. A good opening for the person who will devote all or a part of their time working among their neighbors. Lake

MISCELLANEOUS

FOR SALE—Dairy and stable manure, car lots. Link & Bagley, Box 464, Tampa, Florida. 6t

WHITE WYANDOTT Cockrels, regal strain—the best in the country, direct from Martin pens. Utility and show birds \$5.00 each; also eggs for hatching \$5.00 per 15. W. A. King, Gen. Del., St. Petersburg, Florida.

SOUTHDOWN SHEEP, White Rocks, Toulouse Geese, Guineas, Angora and Milk Goats, Circular free. Woodburn, Clifton, Va.

AGENTS—Quality Shoes, quick sellers. Big commissions, immediate returns! Repeat orders. Experience unnecessary. Write full particulars. Tanners Shoe, 2011 C St. Boston.

FOR SALE

Remington Portable Typewriter with standard keyboard. Has all advantages of larger machine. Ideal for farm and home use. \$60. cash or sold on easy terms. Remington Typewriter Co., 103 Parker St., Tampa Florida.

CONDENSED DATA—on Tung Oil Industry has been compiled by B. F. Williamson and E. L. Lord. By application to B. F. Williamson, Gainesville, Florida, this booklet will be sent Nursery Co., Leesburg, Fla.

LAND INSPECTION—Soil surveys, Florida's leading expert. Consultations, advisory services, appraisals. All agricultural branches. Specialties: citriculture, tropical fruits, vitaculture, trucking, livestock. Lindley Heimbürger, B. S. Agri., M. S. Agricultural Engineer, Chemist, Box 226, Tampa.

FARM—GROVE—HOME

22 acres large bearing grove; modern two-story, 8 room house, completely furnished on third largest lake in state in thriving town; good roads, church, school; complete line farm implements and tools. P. F. Cloonan, Yalaha, Lake County, Florida.

GROVE HEATERS—Several hundred oil grove heaters at less than one-third original cost and practically new, only used once. Heaters, drums and oil all in good condition. Apply to Lewis E. Klatte, The Gem Nurseries, Lake Jem Florida.

POSITION WANTED—Competent citrus grove superintendent wants supervision of groves where quality fruit is essential aim. 12 years technical and practical experience. Care Citrus Industry.

HIGH BLOOD PRESSURE easily, inexpensively overcome, without drugs. Send address. Dr. J. B. Stokes, Mowhawk, Florida.

CONTINENTAL VITALITY CHICKS are different. Our circular explains why. Your copy is waiting, may we send it? Address, 331, The Continental Hatchery of Valdosta, Ga.

YOU FLORIDA LAND POOR REAL ESTATE OWNERS—Trade your Florida land for a time tried and road tested car. From Ford to Lincoln; Oldsmobile to Cadillac; Cleveland to Chandler, or Essex, Hudson; Buick or Dodge; all makes of cars. Open or closed cars. Title of land must be acceptable to such legal authorities as Gibbons and Gibbons of Tampa. Lands must have good location, almost any soil, series and type, if other conditions are fulfilled and checked by soil expert such as Lindley Heimbürger, Tampa, said to be the leading authority in Florida. P. O. Box H-226, Tampa